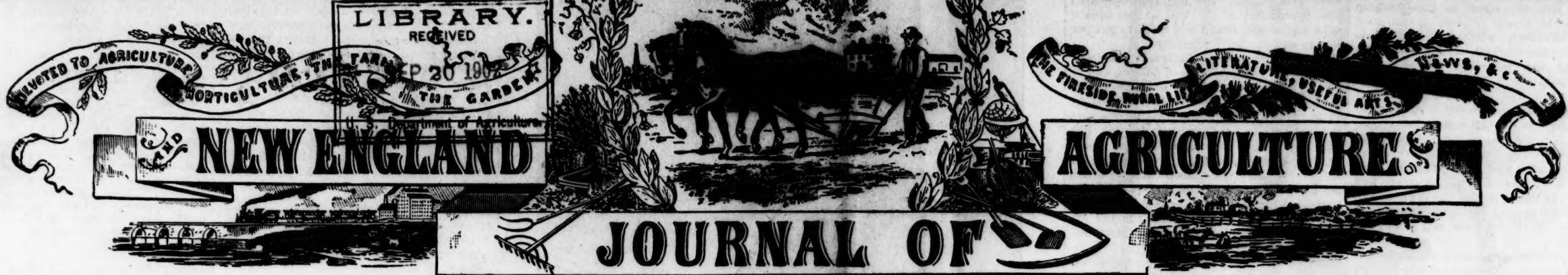


# MASSACHUSETTS PLOUGHMAN



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Correspondence from practical farmers, giving the results of their experience, is solicited. Letters should be signed with the writer's real name in full, which will be printed or not, as the writer may wish. The PLOUGHMAN offers great advantages to advertisers. Its circulation is large and among the most active and intelligent portion of the community. Entered as second-class mail matter.

## Agricultural.

### The Ayrshire Cow.

While we knew and liked the Ayrshire cow, or the grades of that breed, long before we had heard of the Holstein, and before we ever had the care of a Jersey, the latter won our affections away from the Ayrshire, and we rather neglected them, except when we were selling milk, when we were glad to pick up a grade Ayrshire, if we could find one for sale, which was not often, as those who sold milk were not usually anxious or willing to sell them.

But there is much to recommend the Ayrshire or, its grade as a cow for the farmer. It is not what would be called a handsome cow, at least by those who admire the beef breeds, as it is of the dairy type, wedge-shaped body, prominent hips, small head but wide between the eyes, thin neck, and usually thin in body, excepting the large paunch. It was not easy to keep one in good flesh when giving milk, for although hearty feeders, all that they ate seemed to be changed to milk rather than to fat.

Hearty feeders as they were, they would, however, fill themselves in pastures where almost any other breed but the Jersey would come up looking lank and empty. They appear to have the ability to roam farther and do more traveling in a day than any other, and particularly to climb steep hillsides and find every mouthful of fodder that grows there, while their strong digestive power enables them to subsist upon almost any quality of rough forage, or to eat grain or roots in quantities that would be dangerous to any of the other small breeds, and to convert them into milk. This may be attributed to their Scotch ancestry, where they had to get their living on the mountain sides, instead of being tethered out in rich pastures, as were the Jerseys, Holsteins and Swiss cattle.

To that same hereditary influence she owes her hardiness in other respects. She is able to withstand more cold weather without a shiver or a shrinkage of milk than any other breed we have ever known, or to endure cold storms. She seldom has any trouble with the udder, and need never have milk fever or get it if properly cared for, nor do we think they are as subject to tuberculosis as some other breeds. While they are active and rather nervous, they are not as nervous as the Jerseys, and our experience has been that they are seldom kickers or ill-tempered unless very badly treated; but we must acknowledge that they need a good, strong and high fence to restrain them, when put in a poor pasture with a field of corn or clover on the other side of the fence.

We have said above Ayrshires or their grades, because the pure-bred Ayrshire bull has the power, or, as some call it, the propensity to impress the characteristics of his breed upon his calves to a very large extent, perhaps exceeding any other dairy breed, with the possible exception of the Jersey. We have seen and owned some grade Ayrshire cows that were apparently from Ayrshire bulls and grade Shorthorns, or grade Devons that could scarcely be distinguished from the pure bred, and were nearly equal as milk producers. Angerous the half-blood bull imparts the Ayrshire marking and the milking qualities of his ancestry better than the half bloods of any other breed we know of. This may not be a great recommendation, as we do not like any but pure-bred sires for our calves, of whatever breed, but it is evidence of their general good health and vigor.

As milk producers we think that for the food consumed they are not equaled by any breed that we know. They have not reached the record of the Holsteins, but they require only about one-half as much food. The usual weight of a well-grown Ayrshire cow is about one thousand pounds, though grades with some Shorthorn or Hereford blood may exceed that, while crossed upon a small native or grade Devon they will fall below it. The Ayrshire bull at three years old should weigh about fifteen hundred pounds if well fed. Unfortunately they do not cross well with the Jersey, or at least we never saw a cross of those two that was satisfactory to us, either as a milk producer or as a butter cow. Possibly a double cross of Jersey and Shorthorn and then on Ayrshire might prove better.

The object of such a double cross would be to give a little larger body, better filled out form, and to remedy what we thought the one defect of the Ayrshire, the very light color of the butter. This of course can be overcome in these days of butter coloring, or by mixing cream from Jersey or Guernsey with that from the Ayrshire, but owing to the smaller size of the cream globules in the milk of the Ayrshire, they do not rise as quickly or churn as quickly as those of the other two, and

when mixed there is likely to be some loss of butter fat either in the skimmilk or buttermilk. Possibly the use of the separator, and of the "starter" in the cream might prove to some extent a remedy for this, but as we gave up butter making before these were in use, we are not competent to speak upon that subject.

The tests at the Pan-American and other expositions have shown the ability of the Ayrshire to produce six thousand pounds or more of milk in a year, containing about four per cent. of butter fat, or about three hundred pounds of butter in a year, and the cost of feed at Buffalo was but \$4.24 per thousand pounds of milk, against \$4.18 per thousand for Holstein, and over \$5 for Shorthorn, Jersey and Guernsey. But it is as a milk cow that she excels. We do not know that the proportion of solids in her milk is greater than in other breeds, but we think it must be. We do know that after taking off all the cream that would rise the skimmilk from the Ayrshire seemed better than from any other breed, the Devon ranking next.

While we say six thousand pounds of milk per year may be the average for an Ayrshire herd, we think a careful breeder and good feeder might easily bring up a herd to average eight thousand pounds, and individual animals to produce ten thousand pounds. We have had one grade Ayrshire that coming fresh in spring gave us twenty-four quarts, or about fifty pounds a day for some months, fell off to about nine quarts in winter in a cold barn, but was giving thirteen quarts the next spring, about a year after she calved. We think we sold nearly a pound of butter a day most of that year from her, though we had not then formed the habit of keeping exact accounts, and we used all the milk and butter we wanted in the family.

There has been some controversy about the origin of the Ayrshire breed, some claiming or guessing that there was a strain of Shorthorn blood in her, but if so it must have been when the Shorthorns were known as Durhams, and before they had been so much improved by Bates, Collins and other breeders. If this is true it would, in part, account for the fact that they make so good a cross with the Shorthorns and their grades, and for the fact that they fatten easily when not in milk. But we care little for their origin. We wish that there had been more attention paid to them in this country, and that they had fallen more into the hands of careful breeders and better feeders. But as prices on early importations were not high, many who kept them only valued them because of the good results at the fair, and took little pains to keep them pure bred, and none to improve them.

### Farm Hints for September.

#### WHEAT SOWING.

In certain sections the sowing of wheat will be the most important work for this month. Where the farmers have been growing wheat for years we can give them but few hints that will be valuable to them, excepting that some of them would probably find it to their advantage to plow their land early enough to give it two or three harrowings before sowing the seed, and to be more careful to select plump, large seed, which give more vigorous and prolific plants. And if they would be a little more liberal with their commercial fertilizer, using four hundred pounds to the acre, instead of a less amount, we think the crop would repay the extra expense. We have seen but few complaints of the chinch bug this year, and hope they will not be very plenty next year, but we meant to have suggested last month the sowing of a narrow strip around the field for them to lay their eggs in, and then plowing that under before sowing their main crop. Many are now deferring their sowing until they think the danger from these pests are past, and they find with land well prepared and fertile the crop is as large as when they sowed two weeks earlier.

#### HARVESTING FALL CROPS.

Certain of the farm crops will be ready for harvest this month. It is of little use to allow potatoes to remain in the ground after the tops have died down, especially as there are some indications of rot in certain local places, though we think it is not general yet. If it has fairly settled on a field early digging will not always save them, though in a dry place has a tendency to check the spread of it. Each one should use his own judgment in regard to the proper time to market them. Just now our markets are well supplied, and prices are lower, but the crop is reported a heavy one, and we do not expect to see much advance before winter, if it comes then. But a hundred bushels put in the cellar now will scarcely measure or weigh out eighty bushels in the spring.

Onions are another crop that should be harvested when the tops have fallen down, and they may require two or three weeks drying, with frequent stirring over, before they are fit to put away for a winter market. The wooden-tooth rake we have found the best instrument to stir and turn them with. When the tops are cut off, do not cut too closely, and if any tops are green, do not mix those onions with those that are well dried. Keep them separate, and sell them to any who will buy them for immediate use. Even if they are thrown away, the others will sell enough better to pay for doing so. Beans need a better way to do this than to stack them around a centre stake, roots toward the stake and tops out. It looks now as if a good crop of beans would be as profitable this year as a crop of wheat or potatoes, as the prices hold up well.

#### FALL PLOWING.

We have long believed in the advantage of plowing in the fall the land that is intended for sowing or cultivation next season.

If the work is properly done the land will drain off much better and be fit to work on earlier next spring. It will bury the grass and weeds if there are any, and it will bring insects and pupa to the surface, where the birds will destroy many of them, and perhaps the frost or the sunshine some others. But since we have become so full a believer in keeping a cover crop on the land during the winter, even though it is the rye that is so despised by those who can grow the alfalfa, crimson clover or cow peas, we would plow in the fall every field

higher than a month later. It is a good time to purchase what is needed in males, either for sheep-pen, hog-yard or poultry-yard. Do not be afraid to pay a good price for good stock. We mean as good a price as your money or credit will admit. Cull out all cockerels not needed for breeding purposes, separate them from the pullets and give them liberal feed. If they are well grown six or eight weeks they should fit them for market.

#### PAINTING FARM TOOLS.

This is a good season of the year to paint,

any other thing. Many a farmer who has failed with his silo could trace the trouble back to this lack of cleanliness. It is very much like failing to clean out the dairy utensils after each milking. If we fail to do this, trouble is bound to come. With the walls perfectly air-tight and free from all taint of previous filling the chances are all in favor of preserving successfully the year's crop of ensilage.

Vermont.

C. T. WHITE.

#### Live Stock Notes.

When we were a boy it was thought almost disgraceful for a farmer to kill a hog that weighed less than four hundred pounds, and the man who got one up to six hundred pounds or more was the champion of the neighborhood. It is true that the first had to be kept and fed about eighteen months, and the other perhaps three years, and it would be hard to estimate the amount of skimmilk and corn meal their growth required, but in the light of our present experience we are much of the opinion of the old German who said "the corn costs more as the pork." Of course the corn was usually grown on the farm, or in the case of the laboring man was taken in exchange for labor. But later on, when the corn must be bought and paid for with good money, people began to compare the price of it with the value of the pork, and they learned that the breeds of hogs wanted were such as would fatten at about six months old and make good pork when they would dress 175 or two hundred pounds. And then they found that instead of a bushel of corn making ten pounds of pork, which used to be thought a very extravagant statement when we were young, it really could be so used with milk and green food as to make twelve to fifteen pounds of pork. And they learned also that the pork from such young hogs was much superior to that from the older and larger ones. It may be possible to convince some of those who grow pork to sell that they will do well to change breeds again to what is styled the "bacon hog," but those who grow it for home use will not accept this idea unless they are like the old sailor, who wanted the "salt junk" he was used to when on a long voyage, because he wanted something that he could "chaw on."

Otto H. Swigart, the noted Champaign County, Ill., Galloway man, contributes to the Orange Judd Farmer an interesting article on the merits of Shaggy Black Hogs. He says: "It is admitted by all breeders of show cattle that the Galloways have made more rapid strides in improvement in the last few years than any of the other beef breeds. Is it not possible that this proposition, that Galloway breeders rely on mer alone, and can use any animal of superior merit that they may find in any herd to improve their cattle, goes a long way toward furnishing an explanation of this admitted fact?"

"Another reason why the black cattle are constantly gaining on the other breeds is that they are hornless. The desirability of this characteristic is so manifest that it no longer needs an argument to sustain it. Farmer, feeder, butcher and exporter all want it, and the feeder will sacrifice a month's feed or growth to secure it from early cures by dehorning."

"To sum up: All beef breeds are primarily very much alike in form, and are constantly converging toward the beef type. The Galloway has, from its outdoor life, inherited greater constitutional vigor than any of the other beef breeds, and will, when crossed on native stock, impress his characteristics more forcibly upon his offspring than any other, including ability to dehorn, will rustle as well as the best, will beat all others to stand a blizzard, will produce choice beef as economically as any other breed, and top the market much oftener than others, and when recorded, will sell on his merits and the merits of his immediate ancestors, rather than on aristocracy founded in the distant past, and lastly, as a side issue, and as a mere accident, when he comes to die he will his owner in addition to the juiciest beef, a robe fit to cover a king,—far better, more durable and more beautiful than that of the buffalo."

This is a breed but little known to New England, and we have seen but few of them, and those in quarantine for some time. West, but they did not impress us very favorably, though they may be all that Mr. Swigart claims for them as a beef breed.

At a recent trial at Jamestown, N. Y., upon a charge brought by the Society for the Prevention of Cruelty to Animals, experts were brought to testify that what would be cruelty to horses was not cruelty to mules, especially when they were balky. One said that the mule could not stand prosperity, and that when one became balky the only way to remedy it was by starvation. This sounds to us like an echo of the talk we used to hear before the war, when plenty were found to declare that the "nigger" had not the same feelings as the white man, and that to lash them, separate their families, or keep them on short rations, was the only way to keep them from getting unruly. We do not know much about mules from practical experience, but if we had one that we could not manage by kind treatment and a little firmness, as we would a horse, we would not starve him or beat him, at least not very severely, but should think he was one of those that "needed killing" to make him really good, as used to be said of some of the Indians, and might be said of some white people. There are some who, whether they believe in "innate total depravity" or not, seem to manifest it, and to try to reform them seems a hopeless task.

It is well to wean the lambs at about four months old, and if they have been fed with a little wheat bran or a few oats they can be weaned a little sooner. This gives the ewes a chance to recuperate before being

bred again, and thus they will breed earlier and have more vigorous lambs. Many have trouble about getting lambs as early as they wish to, and we think this can be remedied to a large extent by the early weaning of the lambs and liberal feeding of the ewes. Do not get them fat, but keep them thrifty and growing. Do not feed too much corn, but such food as tends to build up the frame, and to give them vigor and strength. There will also be more twin lambs if this method is followed. The ram should not run with the ewes, but should be kept away from them now, and only let with them about an hour in the morning, as soon as there is any indication of a desire to take service. In this way, the season of dropping the lambs will not only be earlier, but will be more uniform, and it may be possible to have a hundred lambs with scarcely a month's difference in their ages.

Prof. Thomas Shaw of Minnesota, who has for years posed as an advocate of the dual-purpose cow, that could furnish some milk, some butter and veal calves while alive, and make some beef when she was killed, has now come out openly in favor of the beef interest. He thinks the dairymen have had their own way too long, and that the beef growers should take their turn now, and should demand more protection from the Government. With prime beef steers selling at over \$8 per hundredweight, and little or no imitation beef from horseflesh offered here, we do not see what the United States Government can do about it. No cheap beef is being imported from other countries that we have learned of. Even those that come here from Canada come for export and not for home consumption, and with sales of Hereford, Shorthorn and Angus stock cattle at the prices they have commanded he can scarcely claim that the beef animals are not properly appreciated. Average prices of twenty-five head in 1857 of \$1941, and twenty-seven head at \$1185. Of 109 head in 1873 at \$354, and ten head in 1878 for \$50,000, show that some people like the pure-bred beef animals. In 1901 public sales were reported of 4045 Shorthorns at an average of \$280.00, and thirty-eight head were lately sold for \$30,000 at private sale. We do not object to these prices at all, and for the beef grower we suppose that he thinks such animals are worth the price paid, and hope he will find it so. But we do object to his claim that the dairy interest is receiving more than its share of attention, and the beef interest being in the background. And still more do we object to the prominence that Professor Shaw and some others have been trying to give to the mongrel beef breed that could produce but little butter while she lived, and made very poor beef when killed.

#### The Silo for the Sheep Farm.

The use of ensilage for winter feeding of sheep is becoming more and more the practice among successful shepherds, and many who have used it claim that it is just as valuable for sheep as for dairy cows. It is in all probability the cheapest food that we can give to fattening wethers or breeding ewes. The one important point about it for ewes is that it must be absolutely free from all taint. If spoiled in the least bit the ewes refuse it. If properly cured and sweet they will eat it as eagerly as they will fresh grass. Their enjoyment of it is no more noticeable than their apparent nourishment from its use. Sometimes at first the ewes will not take kindly to ensilage, but in a short time they can be induced to eat it. Then they acquire a taste for it, and there is no further trouble.

Other food should be given to wethers fattening for market, and when a proper mixture of ensilage, corn fodder and a little whole grain is fed them daily, they do better than if kept on grain alone. One may arrange this mixture a good deal according to the amount of either on hand, but the ensilage should occupy a prominent part in the ration.

High-grade sheep can be safely fed ensilage as well as the common stock, but it should not be given in too great quantities, especially at first. Two or three pounds of ensilage a day should suffice, and in with it there should be mixed about a pound of hay. If grain is also to be fed bran and oats make the best mixture. These given with hay and ensilage make a pretty complete fattening ration. If one increases the amount of grain fed the hay and ensilage should be decreased in quantity proportionately. A ration that has been proven successful for fattening high-grade wethers or ewes is composed of half a pound of bran or oats daily and one pound of hay and two of ensilage. The results are pretty sure to be satisfactory in every particular.

E. P. SMITH.

Ohio.

The government has been very quietly at work in its plan for encouraging the Indian to labor, by taking away the free rations with which it has been the custom to provide him. If we remember our history, this was the plan carried out so successfully by Captain John Smith in the early days of Virginia. If it taught the least industrious of the early Virginians the value of industry, we need not be surprised that the Indian commissioner reports that it is having a valuable influence in civilizing the Indian.

Even without a coal strike to call our attention to the general subject of fuel, there is food for thought in the German use of briquettes, a fuel manufactured from brown coal, peat and the dust and waste of the coal mines. When we become more generally familiarized with the idea that it is possible to have just as much activity in our large cities, and at the same time decidedly less soot, we shall very likely hear more of this particular expression of German manufacturing economy.



LILY OF THE VALLEY.



## Wet Season Crops.

The present season has been so extremely wet and cold that there has been a good deal of call for crops which will stand late planting, and yet ripen in time to help piece out the season for feeding. A good deal of the corn planted for the silo has been rather small, and calculations for filling the silo have consequently been at fault. It is possible, if one has the right soil and conditions, to plant very late a crop of barley and peas to make up the loss through an inferior corn crop. In fact, there are several crops which might be sown with profit in the corn where it is very thin, or upon any available land not in use. Millet, Hungarian grass and similar crops sown where the corn is not very high will make a pretty good crop, and the two can be cut together and put in the silo.

If one is wintering sheep or cattle the sowing of any of these standard late grasses in a wet season will prove profitable. Other food can be saved by feeding the young crop to the stock until very late in the season. Of course every wet day tells better, but with a season like the present it is fair to assume that our autumn will be a long one, for hot weather is apt to be prolonged well into the fall months after a cold summer. If the crops do not prove of any advantage other than that derived from pasturing the stock for a few weeks, it will pay, for a good deal of fertilizing material will be added to the soil. The benefit of this will be realized the following spring and summer.

Prof. S. N. Doty.

## Cover Crops for Orchards.

Where the orchard needs protection in winter a cover crop should be planted early enough to provide a good blanket to the soil and the tree roots. A good cover crop always improves the fertility of the soil of an orchard, and gradually improves the condition of the trees and vines. In the cold parts of the Northern States, where the winters are almost too severe for our ordinary tender orchard trees and vines, a good cover crop of some satisfactory plant is worth more than almost anything else that can be done for the garden or orchard. Clover has been used for a cover crop in an orchard more extensively than almost any other, and the red variety and the mammoth clover are both excellent for the purpose wherever they thrive well. It is not always possible to secure a good catch of clover in an orchard, and then rather than plant it and secure an imperfect crop in time to be of any use it is better to plant some other crop not so difficult and uncertain of growth. Thus, alfalfa in the West, where it has been found to be such an excellent food crop, will probably prove the most satisfactory substitute for the ordinary red clover.

Both Canada and New peas have in recent years become popular crops for this purpose, and where they are adapted to the soil and climate they should prove satisfactory. The cow peas in the Southern and Middle States have become such popular crops with farmers that they would be selected by the average person first for a cover crop in the orchard. The poor sandy soil of the farm will seldom produce good cover crops in time to be of much use, but where the soil is nearly always proved successful on such soils. When sown broadcast they cover the ground pretty effectually and yield an immense crop. The Canadian peas have been used in the colder States almost the same way as the cow peas have been in the South. They are rapid growers and produce large crops, and whether sown in drills or broadcast they are sure to yield an excellent cover crop for vineyards or orchards. Closely allied to these two peas are the soy bean, which has proved of fair value as a cover crop in many parts of the country. To some extent they may be said to be the connecting link between the southern cow pea and the Canadian pea, thriving best in the Middle States.

C. S. Fearing.

## Butter Market.

The Western markets putting prices up from 1 to 1 1/2 cents a pound, and an increased demand here. Boston can do no less than ask higher prices at least on extra grades which are in light supply. The best Northern creamery is firm at 22 cents and some receivers are asking 22 1/2 to 23 cents for best lots. Some New York large ash tubs sell at 21 1/2 to 22 cents and best marks Eastern at 20 to 21 cents, with fair to good at 17 to 19 cents. Good first sell at 19 to 20 cents and seconds at 17 to 18 cents. Boxes and prints in demand. Boxes at 22 1/2 to 23 cents for extra Northern creamery, 20 to 21 cents for extra dairy, and 18 to 19 cents for common to good. Prints at 22 1/2 to 23 cents for extra creamery, 21 cents for extra dairy, and 18 to 20 cents for common to good. Dairy in tubs is 19 to 20 cents for Vermont extra, and 19 for northern New York, first at 17 to 18 cents and seconds 14 to 16 cents. Imitation creamery tub at 16 to 17 cents, and ladies at 16 to 16 1/2 cents. Renovated moving slowly at 10 to 17 1/2 cents, the best grade in fair demand. Jobbing prices from creamery on low grades to two cents on best grades.

The receipts of butter at Boston for the week ending Sept. 6 were 23,896 tubs and 27,378 boxes, a total weight of 1,273,258 pounds, against 1,283,325 pounds the previous week and 1,143,074 pounds the corresponding week last year. Included in last year's receipts were 155,000 pounds in transit for export. It will be noticed that the falling off from the week previous was very small, while the increase as compared with last year is quite large.

The exports of butter from Boston for the week were nothing, against 290,782 pounds the corresponding week last year. From New York the exports aggregated 2838 tubs. From Montreal 23,929 packages were shipped, against 14,227 packages last year, and the total for the season is 280,821 packages, against 231,921 packages.

The stock in the storage shows a further increase, and the total is 26,890 tubs larger than last year. The Quincy Market Cold Storage Company reports a stock of 228,833 tubs, against 189,983 tubs last year, and the Eastern Company holds a stock of 46,832 tubs, against 28,232 tubs a year ago, and, with these added, the total stock is 275,665 tubs, as compared with 218,786 tubs last year.

## Progress of the United States.

A circular issued by the Treasury Bureau of Statistics gives some figures in regard to the "progress of the United States in its material industries," which are worthy of consideration by one who desires to study the history of this country. We have not room for a full report of them, but will give a few of the most striking ones.

The area of the United States was in 1800 only 827,944 square miles, and in 1902 it had

grown to 3,025,000 square miles, without including Alaska and our recently acquired islands. (All of this nearly 2,200,000 square miles was acquired by a fair purchase, as were also Alaska and the islands.—Ed.) The population in 1810 was 3.6 per square mile, and in 1902 it had increased to 26.1 per square mile.

The wealth of the country in 1800 was estimated at seven billions of dollars, and in 1900 at ninety-four billions of dollars, and the per capita wealth from \$307 in 1850 to \$1235 in 1900. The public debt in 1800 was \$15 per capita, and in 1840 it was but twenty-one cents per capita. In 1832 it was \$2.67, and in 1861, before the beginning of the war, it was \$2.74. Then it rose to \$76.98 per capita in 1865, was reduced to \$30.27 in 1880, \$14.22 in 1890, \$13.05 in 1895 and \$12.97 in 1902, although we have borne the expenses of the Spanish war and a large increase in the army and navy.

In 1800 the money in circulation was \$13.83 per capita, near the close of the war it was \$20.57, including the paper currency, and then dropped below the \$20 mark until 1881, when it reached \$21.72. In 1892 it was \$24.60, in 1900 \$26.93 and in 1902 \$28.40.

The deposits in savings banks amounted to a little more than \$1,000,000 in 1820, nearly \$7,000,000 in 1850, over \$43,000,000 in 1880, over \$149,000,000 in 1890, \$549,000,000 in 1895, over \$819,000,000 in 1898, \$1,524,000,000 in 1900, over \$1,510,000,000 in 1900 and \$2,267,094,580 in 1901, while the deposits in national banks increased from \$500,910,873 in 1865 to \$3,111,600,196 in 1902.

The number of farms increased from 1,449,073 in 1850 to 5,739,657 in 1900, and the value of the farms and farm property from four billions of dollars in 1850 to twenty billions in 1900. The value of farm products was not taken until 1870, when it was 1958 million dollars, but in 1900 they had increased to 3764 million dollars, or nearly double. In 1850 we had farm animals valued at 544 million dollars and in 1900 we had over 2381 million dollars worth.

The value of manufactured products increased from one billion dollars in 1850 to thirteen billions in 1900, and the number of people employed in manufacturing industries from less than one million in 1850 to 6 1/2 millions in 1900. We produced about 140 million tons of coal in 1890 and 201 millions in 1901, and 4 1/2 millions of tons of steel in 1890, and nearly 1 1/2 millions in 1901. We have about 35,000 miles of railway in operation now than in 1880, carrying about sixty-four million tons more per mile in 1900 than in 1880, and reduced the freight rate per ton per mile from ninety-three cents to seventy-five cents in the same time.

## The Story of Desurques.

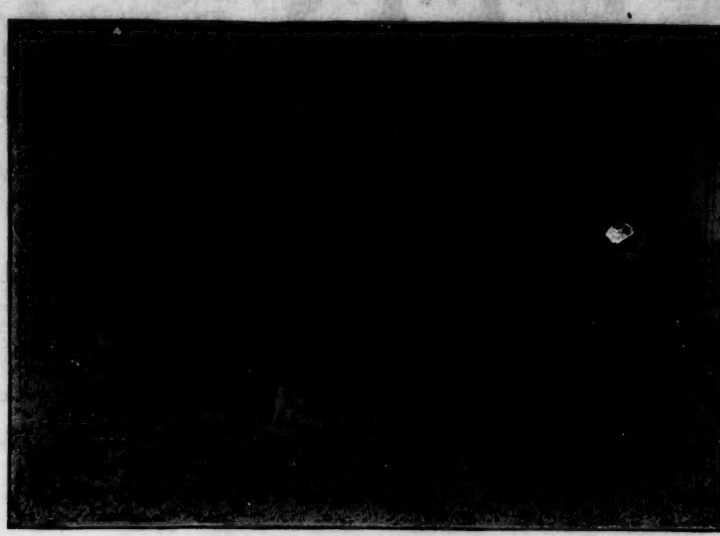
By Benjamin F. Stevens.

One of the great grievances under which the French nation labored, previous to the revolution of 1792, known as the "Reign of Terror," was the extreme inequality with which law was administered. The judges were too frequently corruptible, the influence of aristocracy was enormous, and if neither of those succeeded in averting an unpleasant verdict, the king's grace was ready to come to the rescue, provided it was solicited by a pretty woman, or that any interest, of whatsoever nature, disposed his majesty to a favorable view of the criminal's case. The law, therefore, became in too many instances a mere instrument of oppression, from which the people had everything to fear and nothing to hope; whilst the aristocracy used it as a convenient veil for their injustice and exactions.

It was to remedy these crying evils that the National Assembly established the trial by jury, but as people who have long suffered from one extreme are apt to seek a remedy in the other, they at the same time abrogated the right of pardon, enacting the terrible statute that, provided all the forms of law had been duly observed in a process, the verdict of the jury should be irrevocable. It was not long before instances occurred which exhibited the fearful nature of this edict, and of these the following is one of the most remarkable; but so distrustful had experience rendered the people, that they could never be brought to annul, but only to modify the law. Unwillingly they consented to restore the royal privilege of pardon, but to the day, when this story was written, about 1850, in France, not only cannot the verdict of a jury be reversed, but it was held criminal to arraign the justice. Neither when they pronounced their decision could they recommend the criminal to mercy; the sentence once registered must be executed; but to avert the fatal consequences of this rigor they had recourse to two expedients: One was that if they entertained a shadow of doubt with respect to the guilt of the prisoner, they gave in a verdict of "guilty, but with extenuating circumstances." This particularity will account for the verdict in the case of Madame Lafarge, which surprised every body. Another expedient was the forms of criminal jurisprudence in France. The were no extenuating circumstances apparent to the public; but the jury feeling too well of her guilt to acquit her, and yet not so certain of it as to feel quite satisfied that it was right to take her life, had recourse to this expedient.

In cases, however, where the evidence has appeared, at the time of the trial, so conclusive that this saving clause has been omitted, should any subsequent disclosures place a doubt in the mind of the prisoner, the Court of Cassation comes to his aid. They take upon themselves to review the proceedings, and in most cases succeed in discovering that there was some flaw in the indictment, or that some form of law had been overlooked, which involved the necessity for a new trial. If neither of these imperfections could be found, however, the sentence must be executed, even though the judge and jury were morally convinced of the innocence of the sufferer. A French jury could not err, nor could their verdict be revised.

It was in the latter end of the month of April, of the year 1796, that a gentleman of the name of Joseph Lesurques arrived with his family in Paris. His age was about thirty, his fortune easy, his character unimpaired. He had served his country with credit, and since his retirement from military life had filled acceptably and without emolument the situation of *chef de bureau* in his native district. He was a man deeply attached to his family, undisturbed by ambition, unsecluded by pleasure. His income of seven hundred a year sufficed for all his wants, and his object in coming to Paris was solely to afford his children those advantages that the provinces could not supply. On their arrival they established themselves as lodgers in the house of a notary called Monet, in the Rue Montmartre. It will be admitted, we think, that they were entitled to all the happiness they promised themselves; but they were soon plunged into an ocean of trouble from no exertions of themselves, and from which their friends could not extricate them; an ocean whose waters of sorrow to this day embitter the bread of their descendants.



BERKSHIRE BOAR.  
First and Champion at the Royal Show in England, 1901.

There resided at that time in Paris a gentleman named Guesno. He, as well as Lesurques, came from Donai, and, being gratified at the arrival of his townsman, Guesno invited him to meet a few friends of his in a celebrated restaurant of the day. The company, for some reason, feared the eyes of the entertainer's intentions, since the only guest, besides Lesurques, was the Sieur Richard, the owner of the house. After they were assembled, however, a young man named Couriol happening to call to speak to Richard, he was invited to join the party, all dressed in the height of the fashion of that time. They wore, for example, ponderous pigtails, top boots with silver spurs, very large eyeglasses, a quantity of jewelry, and amongst the rest, two long watch chains dangling from their waistcoat pockets. As this costume was *de rigueur*, they were necessarily all dressed alike.

During the breakfast nothing particular occurred except the arrival of Couriol, who was known only to Richard. He was a well-grown man of twenty-five, but there was something in his countenance that inspired distrust and suspicion. He had dark, bushy eyebrows, and a pair of dark, unsettled eyes, that could not look anybody straight in the face. In the course of the conversation Lesurques explained of his coming to Paris, and expressed a hope that he might have an early opportunity of entertaining the present company at his own table.

"Your plans for the future seem well arranged," said Couriol, "but who can foresee the future? Who knows what may happen to him before tomorrow morning?"

During the last five or six years there is not a citizen in France, however secure his position may have seemed, who could reckon on the fee simple of it for a week.

After these desponding views the party adjourned to the Palais Royal, where, having taken a cup of coffee in the *caveau*, they separated.

Four days had elapsed since the breakfast above alluded to, when, at an early hour in the morning of the 8th Floreal (a month which consisted in the then French calendar of half April and half May), the guard at the *Barriere de Charenton* observed four horsemen pass through the gates and take the road to Melun. It was not difficult to perceive that the animals they rode were on hire, whilst from the lively jests that seemed to be circulating among the cavaliers, they were supposed to be leaving the city for a day's diversion in the country. This gay humor, however, only extended to three of the party; the fourth seemed of a different temper. He rode some way in the rear of the others taking no part in their conversation. His eyes were fixed and his countenance gloomy. This man was Couriol. The little party reached Monzongon, a village on the road to Melun, between twelve and one o'clock, one of them having galloped forward for the purpose of ordering a luncheon to be prepared at the Hotel de la Poste. After the lunch they mounted their horses and pursued their journey. In this manner they reached Liersaint, a beautiful village, and famous in history as the scene of Henry IV.'s adventure with the miller; and here they made a somewhat unusual stay. One of their horses had lost a shoe, and the chain which attached the spur of one of the riders to his boot was broken. This last on entering the village had stopped at the door of a woman called Chatelain, a *linona-diere*, of whom he requested a cup of coffee, and asked also for some strong thread to repair his chain withal, which she gave him. But observing that he was very expert at the job, she summoned her maid to his assistance, during which operations they had both, of course, ample leisure to notice his person and features. In the meantime, the others had ridden through the village as far as an inn kept by a man of the name of Champeaux, where they alighted and called for wine, while the horse that had lost its shoe was sent to the blacksmith's. They then all repaired to the widow Chatelain's, where they played several games of billiards, after which the remounted their horses, and set off for Melun about half-past eight in the evening.

When Champeaux returned into the room they had quitted, he found a sabre in his sheath, that one of the party had forgotten. This he immediately sent after them, but the messenger did not find them. In about an hour afterwards, however, the owner returned in great haste to reclaim it; it was whose spur chain had been broken, and who had afterwards forgotten his sword at the inn.

Lesurques on the day of his arrest wrote to a friend to find out those of his friends who had seen him on the night of the murder, that he might prove an *alibi*. Fifteen persons were brought forward, and Lesurques would have cleared himself had not one Legrand, a jeweler, sworn that he had transacted business with Lesurques at a time when by no means could he have been with the murderers in the country, and proffered his books as evidence, but the date of the 8th Floreal had been changed to the 9th. This was fatal, and the whole, Lesurques, Guesno, Couriol, Bernard, Richard and Bruer, were all brought to trial with the woman, in a state of excitement bordering on insanity, rushed into the court-room and demanded to be heard. Being brought before the president, she declared with the utmost vehemence that Lesurques was entirely innocent of the crime charged against him.

"The witnesses are deceived," said she, "by the extraordinary resemblance which exists between him and the real criminal, for whom they mistake him. I know him well; he has fled, and his name is Duquesne." This woman, Madeline Brebon, was Couriol's mistress, and in making this avowal, to which her conscience urged her, she admitted the guilt of her lover. Yet she was not believed, nor was her evidence investigated. Couriol, Lesurques, Bernard and Richard were found guilty, the first three to death, the other to the galleys.

As soon as the sentence was pronounced, Lesurques rose from his seat, and with entire composure declared his innocence, adding that "if a murderer on the highway were a fearful crime, it would be well for his judges to remember that a judicial murder was no less so."

Then Couriol arose. "I am guilty," said he. "I confess it, but Lesurques is innocent, and Bernard had no part in the murder. Four times he reiterated this assertion, and from his prison he wrote a letter, full of sorrow and repentance, to the same purpose. 'Lesurques knew nothing of the affair; the other parties were Vidal, Rossi, Durochat and Dubosque; it is the

open, and the assassins possessed themselves of all the money the courier carried with him, amounting to seventy-five thousand francs in bills, bank notes and silver. They then returned immediately to Paris, the fifth conspirator being mounted on one of the carriage horses, and betwixt the hours of four and five in the morning they re-entered the city by the *Barriere de Rambouillet*.

This bold and reckless enterprise awakened terror and amazement throughout the country in France, even when deeds of violence were rife all through the "Reign of Terror." Hardly had the assassins reached Paris before intelligence of their deeds had reached the authorities, and the most vigorous measures were at once instituted for their discovery. The first indication of the deed was the wandering post-horse which the rider had turned loose near the Place Royal. It was also ascertained that four other horses bathed in sweat had been brought into the yard of a stable keeper named Murion. Murion admitted at once that they had on the previous day let them to two persons known to him; one was named Bernard, the other was Couriol. The former was instantly arrested, but the latter, with the rest of the band, had effected his escape; as the whole country was on the alert, and the descriptions given by the innkeeper where the four horsemen had baited were extremely precise, there seemed little chance of their ultimate evasion.

With respect to the fifth, the people at the postoffice where he had taken his place in the mail carriage described his person with equal accuracy. In the meantime Couriol had taken refuge in the house of a friend named Bruer, whither he was traced and arrested. In the same house was found Guesno, who appears to have gone there on private business. He and Bruer were also arrested, together with their papers, but these two latter clearly proved an alibi, and were both dismissed. Guesno demanded back his papers and was told he could have them next morning. He started for the office of justice early betimes, and who should he meet on his way but his old friend Lesurques. Of course they discussed the terrible events connected with the murder of the courier of Lyons, while proceeding to the *bureau de justice*, where Guesno was to receive his papers, but Daubenton, the magistrate, not having arrived, the two friends seated themselves in the ante-room, where other persons were awaiting his arrival, among them the witnesses who had been brought in from the suburbs to give evidence against Couriol and the others.

Daubenton, in the meanwhile, had arrived and entered the office by a private door, as one of his clerks entered and informed him that some women in the ante-room declared that two of the murderers were calmly sitting amongst them. One was the maid, Santon, who had served the four travelers at the inn at Monzongon; the other was Grossette, servant to Madame Chatelain, the *linona-diere*, who had mended the spur, given them coffee and seen them playing billiards; they were confident they were not mistaken. The evidence was so strong that the worthy magistrate could not do otherwise than order the arrest of Guesno and Lesurques, although he was intimately persuaded of their entire innocence. The two prisoners were at once confronted with the witnesses, and all swore to their persons, and that Lesurques was the man whose spur chain had been broken, and who had afterwards forgotten his sword at the inn.

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last for whom Lesurques is mistaken." But strange to say, these assurances were not investigated. A petition was, however, sent in to the Directory, and the Directory referred the matter to the *corps Legislatif*. The answer of this body was: "That the process was strictly legal; that a single case could not justify the violation of a well-considered statute; and that to set aside the verdict of a jury for the reasons advanced, would be equivalent to arraigning the wisdom and justice of the law as established." Since the right of pardon no longer existed, there thus remained neither hope nor help for Lesurques.

This letter he then wrote to his wife: "My dearest Love—No man can elude his destiny; it is mine to die on the scaffold, the victim of a law which I shall meet my fate as becomes me. I send you some of my hair; when my children are old enough you will divide it among them. It is the only inheritance I have now to leave them. His whole property was confiscated to the state.

He also wrote a letter to the real criminal, which was inserted in the public journals:

"Be thou, in whose place I am to die, content with the sacrifice of my life. The day may yet come that you will find yourself in the hands of justice,—then, remember me! Think of my children, and of their broken-hearted mother, covered with disgrace. Restore them their good names; repair their dreadful misfortune, which has wholly originated in the fatal resemblance betwixt you and me.

This "victim of judicial murder," with his two companions, was executed on the 10th of May, 1797, and Lesurques, who conducted himself with the most heroic calmness, went to the scaffold in a complete suit of white, which he wore as the symbol of his innocence. As they went through the streets Couriol stood up in the cart and cried aloud to the people, "I am guilty, but Lesurques is innocent." The latter died forgiving all men, and calling "God to witness the injustice of his sentence." Thus the climax of all injustice was reached through the very fanaticism of justice.

Among those who believed in the innocence of Lesurques was Daubenton, before whom the prisoner was first brought. He had, unfortunately, been a principal agent in the catastrophe; nothing could appease his remorse but the reintegration of his victim's fame,—a tardy, but, as regarded his family, a most important reparation; and as this could only be effected by the arrest of the other three criminals named by Couriol, he resolved never to relax his exertions till he laid his hands upon them. It would fill a volume to recount the means he used to effect his object; we can only here detail the result of his self-imposed and meritorious labors.

Two years had elapsed since the death of Lesurques before Daubenton discovered the slightest indications of what he sought; but at the end of that time, he found in the police reports, which day and night were brought to him, the name of Durochat. This was the man who, under the name of Laborde, had traveled with the courier of Lyons, and was now in the prison of St. Pelagie for a robbery. There was no difficulty in identifying him, and accompanied by Daubenton, four gendarmes and a constable, he was conveyed to Versailles to be examined. They stopped to give a breakfast to Durochat, and then he requested a private interview with the magistrate, which was granted. Daubenton ordered his own and the prisoner's breakfast in a private room. The constable pointed out the danger of trusting himself alone with such a villain, but Daubenton paid no heed to the advice. He was determined to find out with what he had to do, and to do to clear the memory of Lesurques. They seated themselves at the table opposite each other. Daubenton took up the only knife on the table, intending to open an egg with it. "You are afraid of me," said Durochat to the magistrate, looking hard at him. "You arm yourself already." "Take the knife," said Daubenton, "out yourself a slice of bread, and tell me what you know of the affair of the Lyons courier." He had taken the right word. Durochat savagely clutched the knife; but in a moment more he stood up and laid it on the table.

"You are a brave man, citizen," said he, "and I am a lost one. You shall know all." Whereupon he made a full confession, confirming in every particular the account given by Couriol. The name of Lesurques he had never heard till after his execution. It was Dubosque that had repaired his spur at Monzongon, Dubosque who had forgotten his sword at Liersaint.

Some time elapsed before the other three were taken. Finally the exertions of Daubenton were crowned with success. Vidal, Dubosque and Rossi were arrested and paid the penalty of their crimes. A light was placed on the head of Dubosque, such as he had worn on the fatal day, the resemblance betwixt him and Lesurques became so remarkable as perfectly to account for the unfortunate error of the witnesses, who had been led by a certain similarity of features to mistake Guesno for Vidal.

The innocence of Joseph Lesurques was thus made manifest to all the world; nobody could doubt it; and his family seemed naturally entitled to the restoration of his property, and such a vindication of his fame as a revision of his sentence alone could afford. For these sacred rights they have never ceased to supplicate. The good magistrate, Daubenton, devoted not only the latter years of his life, but a considerable part of his fortune to the promotion of their suit. But, alas! the verdict of a French jury could not be revised.

In 1842 died the widow of Lesurques, leaving a son and daughter, from whom on her deathbed she required a promise that they would never relax in those duties to their father's memory to which she had devoted her life. Her eldest son had fallen some years before in the service of his country. During the reigns of Louis XVIII. and Charles X. a part of the property of this unfortunate family was restored to them, not as a restitution but as a favor.

Never was there a more lamentable verification of the maxim, *summus ius summa injuria*, than is afforded by the story of Joseph Lesurques. We are the subjects of the law, but justice and mercy are the laws of God, and to these all human institutions must yield precedence.

Is there not something of medieval craft in the New Orleans project of introducing a fatal tularia disease among her undesirable mosquito population? Here in the East we are still content with pouring oil on the troubled waters of an insect-infested community. The use of trout as an exterminator is even more gentle, for in this case the young mosquito serves to feed the trout.

It is pleasant to note how often the writer of the anonymous letter, threatening death or other disaster to the recipient unless he deposits a certain sum of money in an appointed spot, comes sadly up against an appointment. The general public has no way of knowing how many men allow themselves to be victimized, but those who don't

are shining examples, to whom everybody else should be grateful.

"A man whom I loved because of his faithfulness and his kindness to my children." Here are two clauses that sum up a splendid type of character; no man could have a better memorial.

## Literature.

Naturally enough women artists are largely represented in the "Juveniles" for the fall and holiday season. One firm, A. C. McClurg & Co., announces four volumes illustrated by several of the younger artists, including a book of fairy stories with colored pictures by Miss Smith, two collections of fairy stories containing some of Mrs. Perkins' dainty drawings in colors, and a nonsense book by Carolyn Wells, which has furnished Miss Cory with inspiration for some irresistibly clever sketches. Incidentally it is said that Miss Smith and Miss Green are to bring out a "Child Calendar" in Philadelphia, which is expected to make the biggest kind of a success. Of course, the fact that one firm is having most of its children's books illustrated by women artists does not prove the point entirely, but an examination of other publishers' announcements will doubtless show that the tendency is largely in that direction.

Mrs. Nancy Huston Banks' novel, "Oldfield: A Kentucky Tale of the Last Century," is now in its third edition. The charm of the story has been aptly described by a reviewer who says that "as you turn over its pages you get something of the feeling you have when you open a long-stored drawer in which something very fragile and delicate has been packed away in lavender and dried rose leaves."

Owen Wister's novel, "The Virginian: A Horseman of the Plains," has run into its seventy-fifth thousand. It is now being sold at the rate of over one thousand copies a day. The last edition, of close upon twenty thousand copies, was taken up in two weeks.

The author of "The Century Cook Book," Mary Ronald, is preparing a new volume with the title "Luncheon," which she calls "The Century Picture Book." It is a guide to the preparation of dainty dishes for dainty meals, and while it contains no general rules for cooking, it is designed to suggest quick and pleasing dishes, especially for luncheons. It is illustrated liberally by photographs, each showing a tempting dish properly garnished, ready to be served. The Century Company.

Mr. Theodore L. De Vinne, the veteran printer, who has recently issued books on "Plain Printing Types and 'Correct Composition,'" will soon publish a volume on "Title Pages." Designed to be an aid to printers and publishers, and also interesting to those who care for the making of fine books. The Century Company, New York.

Richard Harding Davis' new novel, "Captain Macklin," will be ready for publication about the middle of September. It is distinctly one of the important works of fiction of the year, and it has a special element of vividness and personal quality in the fact that it deals with a kind of life with which Mr. Davis has become very familiar in the course of his own experiences. Captain Macklin's career carries him through a South American revolution and through various military adventures, and Macklin himself is one of the author's most fascinating heroes. The novel is a decided step in advance of the author's most popular former stories and a rich fulfillment of the promise of increasing power conveyed in his early work. Charles Scribner's Sons.

"Chanticleer," by Violetta Haas, is an idyll of modern life. Roger and Mary, happily mated, lose by fire their house, with its belongings. They are artists by temperament, though Roger's ostensible vocation is literature, and they determine to start a new life from their accustomed life, with its exactions and its cares, its worry over servants, house-keeping and entertainment, and all the artificial ties of society, and to go back to nature. They build for themselves a new home in a place that shall be a home and nothing more. They create a simple but adequate camping-place in the rural solitude. Friends, hearing of the experiment, flock about them and build houses of their own. A love story of charming sweetness develops and holds the reader. The narrative is full of exquisite descriptions of nature which belong to the thread of the story. The style is notably vivid and captivating. It has originality, wit and humor, and is splendidly adapted to a romance of this kind. The book will appeal to both lovers of nature for nature's sake and also to all men and women who like a good romance. Published by Lothrop Publishing Company, Boston.

This season's additions to "The Century Classics," a series of the world's best books, edited and introduced by distinguished men of letters, will include "Essays of Elia," by Charles Lamb, and Laurence Sterne's "A Sentimental Education." Both volumes will be illustrated with portraits and accompanied with introductions by well-known literary men.

Helen Hunt Jackson's delightful California sketches, heretofore printed in her European travel sketches, have just been published in a separate volume entitled "Glimpses of California and the Missions," with thirty-seven pictures by Henry Sandham, who illustrated "Romona." Little Brown & Co. are the publishers.

Mr. Devereux's romance, "Laitie of Louisiana," has just gone into a third edition. It is Frances Charles' original story, "In the Country God Forgot," while "A Girl of Virginia," by Lucy Mearns Thurston, is now in its fourth edition.

Little, Brown & Co. have just published a new edition of "The Boston Cook Book," with an appendix containing three hundred additional receipts.

"Memoirs of the Life of Sir Walter Scott," by John G. Lockhart, Cambridge edition, in five volumes, with eleven photographic illustrations. 8vo, cloth, gilt top, \$10; half calf, gilt top, \$17.50; half polished morocco, \$17.50. Is to be published by Houghton, Mifflin & Co., Boston. Lockhart's Life of and complete long list place among the greater books of English literature. In Leslie Stephen's words, "The biography may safely be described as, next to Boswell's Johnson, the best in the language." The edition now presented is made particularly valuable by the fact that it is based upon a large amount of important material concerning both Scott's life and Lockhart's, which has appeared since his work was first published. It has been edited with the utmost skill and the most painstaking, scholarly care, and contains many extremely interesting notes of marked importance to the subject, but of a kind which could not have been incorporated by the author himself.

The Scribners publish this fall a new and cheap edition of the historical novels of Bulwer Lytton in six volumes. It includes "Rienzi," one volume; "The Last Days of Pompeii," one volume; "The Last of the Barons," two volumes; and "Harold, the last of the Saxon Kings," two volumes.

The contents of the September number of the Popular Science Monthly are as follows: "Aerography," by Percival Lowell; "University Control," by Prof. J. Stevenson; "The World's View of Science," by Ernst Haeckel's Philosophy," by Prof. Frank Thilly; "Religion and the Question," by M. C. Marsh; "The Story of a Word—Mammal," by Dr. Theodore Gill; "A Year of Weather and Trade in the States," by Prof. R. DeC. Ward; "Mental and Moral Heredity,"



## Poultry.

## Practical Poultry Points.

There is a danger of getting old fowl not only too fat to lay, but too fat to live, especially the Asiatic breeds. The fat accumulates on the inside, so that it not only checks the action of the egg-producing organs, but even the action of the gizzard and the heart. They die of heart disease or heart failure, and there is usually no warning, they being found dead under the roosts or on the nests. When such old fowl get much above the standard weight of the breed, it is well to limit their feed, and especially avoid corn, corn-meal and barley. Give oats, with plenty of green feed, and try a little judicious starvation on them. A wheat-bran mash, with a little linseed meal in it, will help the cure. There should be plenty of grit all the time. If accustomed to corn and corn-meal, they may not take kindly to oats and wheat bran at first, but hunger will bring them to it.

The Petaluma Poultry Journal tells of a farmer who bought ten sitting hens in February which cost him \$4.40, and wire fencing costing \$2.30. They were all set Feb. 21 on fifteen eggs each. They hatched out 135 good, strong chickens which were placed in a brooder. Nine hens were then given 135 eggs from which they hatched 118 chickens. Eight of them were set for the third time on twelve eggs and produced one hundred chickens, a total of 333 chickens from 435 eggs, and not a crippled chicken in the lot. The hens were supplied with food, water and dust bath in the morning, and were kept free from lice, and those that sit nine weeks seemed to be none the worse for the long-continued sitting.

It is reported that six chicken-fattening stations are to be established in Prince Edward Island and Cape Breton. Nova Scotia and New Brunswick will have one each. They will commence operations about Sept. 10, and each will be provided with crates for fattening from five hundred to a thousand chickens at a time. As the fattening process takes but about four weeks, it is intended that each station shall fatten at least three lots, if they can obtain enough birds that are suitable, probably not less than fifteen thousand chickens in all. These are destined for the English market, as shipments that were sent by the Agricultural Department of Canada proved a success last year, not only selling readily at fair prices, but suiting the consumers. An accurate record of the cost of food, transportation and other expenses will be kept at each station, and some information is likely to be obtained as to the best methods of fattening rapidly, and the foods to be used, to especially bring out the quality liked in the English market, where they prefer a white skin and white flesh to the yellow skin that is said to result from exclusive feeding on corn and corn meal.

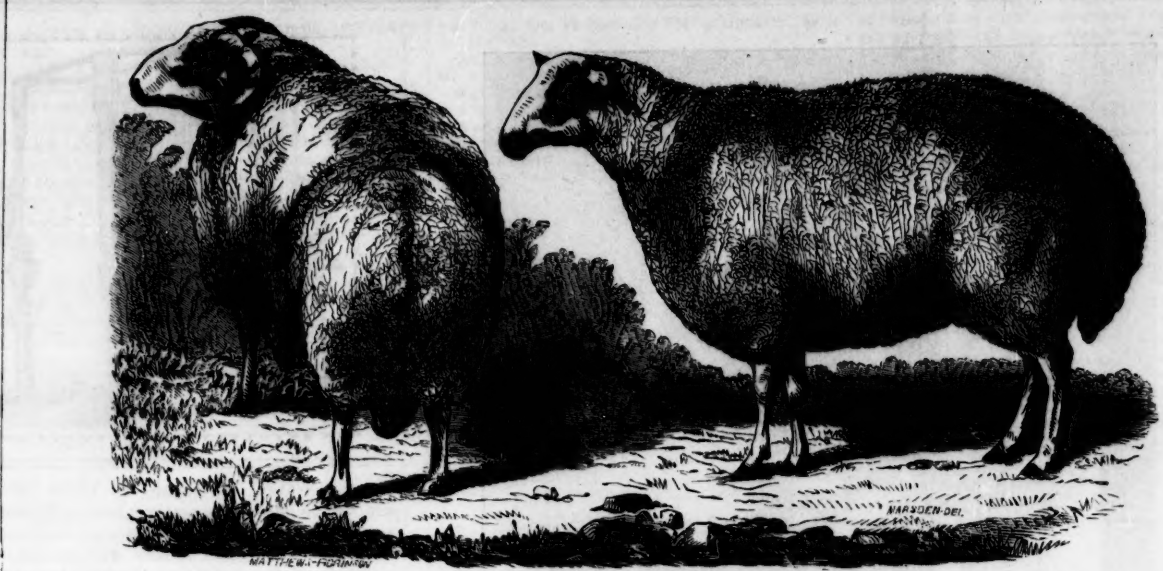
The hen seems to be deficient in the sense of taste, eating decaying or rotten meat or swill as readily as that which is fresh and sweet, and taking a sip of water from a cess-pool or a filthy puddle as readily as from a bubbling stream. If they cannot taste the unpleasant flavors, those who eat the eggs or the chickens that are grown on such food can taste them. We also doubt if the eggs from fowls so fed will produce good, strong, healthy chickens. We believe that such filthy stuff contains disease germs, and we do not care for it at second-hand, even after it has passed through the digestive organs of the hen, cow or hog.

A writer in the Farmers' Tribune says that from Nov. 1, 1897, to March, 1898, he fed 80 hens, and they consumed 60 pounds of oilmeal, 250 pounds of bran, 15 bushels of corn, 8 bushels of oats, one-half bushel of wheat. This cost \$8, or ten cents per hen. For each dollar's worth of food he received \$3.50 worth of eggs during the four months. From Nov. 1, last year, to March 1, he had 50 old hens and 30 pullets, and they ate 260 pounds of middlings and bran, 50 pounds of oilmeal, 50 pounds navy beans, 100 pounds animal meal, 5 bushels of wheat and 8 bushels of corn. This was a more nutritious food than the other, with but about half as much corn, and at the highest prices it cost \$16, or 20 cents per hen, and he received less eggs per hen than on the other ration, and he only received \$1.40 worth of eggs for each dollar's worth of food; or, in other words, while one winter 80 hens gave a net profit of \$208, last winter the profit was only \$32.

While hens like a variety of food, there is, as in the human race, specimens of the individual which need to be humored. Some one who had small plots of red, crimson and white clover, with other grasses, near to the henyard, noticed when the hens were let out certain hens always went to the same plot, some liking the red clover best, some the crimson and some the white clover. But why would it not be well if having a grass plot for the hens to put in a mixture, so that all might feed together and each choose what she liked best? But we would wonder something that any of the world would leave clovers to get to a field of lettuce, cabbage or rape. This seems to disprove what we said above about the hen having no sense of taste, and we can only guess that things which smell and taste disagreeable to us are not much disliked by them.

We have visited henhouses where, if the hens had been as sensitive to bad odors as we were, they would not have stayed in there one minute at a time. There was first a pneumonia escaping from the wet and decomposing droppings under the roosts, a clear waste of valuable fertilizing material that was certainly needed on some parts of the farm. Then there was a flavor of rotten eggs that had been used as nest eggs and broken in the nests or on the floor, and then the smell of some putrefying meat thrown in for the hens to pick upon, and the front of the house a lot of boxes partly filled with sour dough, that was as sour as a vinegar cask. The owner said it didn't pay to keep hens. We wanted to tell him to take about two loads of manure and earth and fifth out of there and put it on his grass ground, then fill up with good clean earth or sand, feed wholesome food, and clean up the droppings three times a week, and see if he did not have better luck, even with his poor, scrub hens.

We have heard people assert that the poultry show, and at shows of other kinds of stock as well, that they had better stock at home than those that were awarded prizes. Doubtless they believed so, and seeing a collection of all good birds, they were not able to appreciate all the points of the best. If they had taken their own birds to the show, they might have been able to compare to see wherein the prize winners excelled their own. The exhibition is valuable not only as an educator for those who go there as lookers-on only, but the exhibitors learn more and more readily than the spectators, because what they have learned before has prepared them for a perception of the fine points in a first-class bird. The novice in the poultry business who thinks



FAT TAILED SHEEP.

he has good birds should not fail to exhibit them. He may be so fortunate as to win out over more experienced competitors, in which case it will prove a most valuable advertisement, and if he does not, he may see wherein his birds are lacking, or where he has failed in properly preparing them.

It is said that the record in poultry picking is held by George Fisher, employed by Swift & Co. at the stock yards in St. Joseph, Mo. He picked fifty chickens in eight minutes and one second in the presence of 350 traveling men. This was one and a half minutes better than the best previous record. If we ever beat that we shall not tell of it unless we can bring about as many witnesses as he had. They kept ninety-nine men at work on eleven picking rods, where the birds are hung by the legs. There are a half dozen or more assistants at each end of the rods to hang them on and take them off. One man sticks them as fast as three or four will hang them up. Then as they slide along the rod each of the nine men has a pull at it, one rough picking, another taking the wing feathers, and so on until the end of the line, where it is dressed. These ninety-nine men handle about eight hundred birds an hour. The building where this work is done has capacity for fourteen thousand fowl. When dressed they go down a chute to the cooling-room below, and later on, perhaps, to the freezing-room, which is kept at a temperature near zero. Not all are frozen before they are shipped, as many are sent direct from the cooling-room. They are packed a dozen in a box, six in either of the two rows, with paper between them, and when a box comes through in good condition, as they usually do, they look "good enough to be eaten."

## Poultry and Game.

The poultry trade remains dull, with receipts in excess of demand, and it is easy to buy at quotations given. Choice Northern and Eastern chickens are 18 cents for roasting size, 14 to 16 cents for common to good, and 14 to 15 cents for two-pound broilers. Fowls 14 to 15 cents for extra choice and 12 to 13 cents for common to good. Green ducks 16 to 17 cents and young geese 16 to 18 cents. Pigeons \$1.50 a dozen for choice and 75 cents to \$1.25 for common to good. Squabs, choice large \$2 to \$2.50 a dozen. Western ice chickens, 33 pounds or heavier 13 to 14 cents, broilers, 24 to 30 pounds 12 cents, 15 to 20 pounds 13 to 14 cents. Fowls, choice 13 to 15 cents, common 12 cents, old roosters 9 cents. Turkeys, fancy spring 20 cents, common to good 15 to 18 cents. Western frozen chickens choice 14 to 15 cents, common 10 to 12 cents, broilers choice 12 cents, common 10 cents. Fowls choice 12 to 13 cents, common to good 10 to 11 cents. Turkeys 20 to 21 cents. Live poultry in good supply. Chickens 11 to 12 cents, fowls 11 to 13 cents, roosters 7 to 8 cents.

## Horticultural.

## Should Trees be Pruned When Transplanted?

Perhaps no other gardening subject has so diverse opinions expressed in relation thereto than that of the pruning of trees when transplanted.

Experienced men whose opinions are held high will declare emphatically against the least amount of pruning. On the other hand, equally authoritative opinions come out favoring pruning all branches into a "pole." Others have added to the latter advice to prune the roots in to a stub. Whom shall we follow? The safest course, perhaps, is to follow no one absolutely. Learn all you can by hearsay, then use your own common sense and good judgment towards making the plants feel at home and quite comfortable. Finally, blame no one for bad results—not even yourself, provided you profit by your experience.

The course followed by us has always been to recommend the frequent practice of pruning, and though it is but recently occasion was taken to give advice of this nature, the importance of the subject, as the editor sees it, seems to require further remark.

A recent Western meeting of prominent horticulturists had this same subject before them, and while the opinions differed, the majority favored pruning.

The fact is there is good and bad pruning, and good and poor work in planting. It is not any one condition that is to insure success. But a good effort all round will bring success out of generally poor conditions.

In justification of pruning it is safe to say that the loss of a few roots, which must almost invariably follow even careful digging, is a removal of just so many months for feeding the tops of the plants. Therefore, the tops being the consumers, remove, by pruning, enough to balance the producers, supply the less call there should be upon the tops.

But now enters the question of making new growth. Can the pruned branches make new growth as quickly and as well as that which was removed,—the young, vigorous growth? Here is where a good knowledge of different trees is well, and really needful. Some trees will quickly make buds where none before existed; others having buds in dormancy stubbornly refuse to start them on, and would never think of making new ones. Then, too, there is a difference between the classes of wood on the same tree. Some two-year-old wood will not bud easily; the young wood holds all the power.

As a general thing, the soft woods, like the soft maple, willows, poplars, tulip tree, etc., cannot be pruned so severely,—they bud easily from any age of wood; while the hard woods must be treated cautiously. Of the latter, the fresh, young, strong wood must be preserved if possible. Prune the one-year

growth of oak just as severely as possible, leaving pieces with but a bud or two. The weak, twiggy growths remove entirely. These take a lot of support, and are pretty sure to die off later if not removed. Save the strong.

Another phase of the question is: Does it make any difference in treatment required whether the transplanting is done in fall or in spring? Of course, a plant coming into leaf shortly after transplanting, as in spring, draws more nourishment than one without leaves, and the more the greater that drain. A few strong, healthy leaves is preferable to a multitude of weaklings.

In fall transplanting, no leaves come to grow upon the tree endeavoring to become settled into a working position, but if exposed to severe winds the effect may be something similar, as dry winds evaporate moisture through the bark. Hence we also consider the exposure in judging the probable results.

Up to this point, the subject has been treated from a standpoint of security from loss. Now consider for a moment the aid to new growth.

By reducing the top, we have less to be supported, enabling the tree to give all its food to smaller portions, instead of distributing it throughout a greater number of branches. It is energy concentrated, and the result is that the new growth when made is proportionately stronger.

Prune wherever possible and as much as you can, but always with good judgment.—Meehan's Monthly.

## Vegetables in Boston Market.

While trade in vegetables is a little more brisk since the vacationists have returned home, there is a sufficient supply of vegetables to keep the prices well down. Beets are 30 to 40 cents a box, and carrots 40 to 50 cents. Parsnips \$1 to \$1.25 a box and flat turnips 50 to 75 cents. Yellow turnips \$1.25 a barrel. Native onions 65 to 75 cents a box. Connecticut yellow \$2 to \$2.25 a barrel, and Ohio small barrels \$1.50 to \$1.75, Spanish \$1.10 a crate. Leek 40 cents and chives \$1 a dozen bunches. Radishes 40 cents a box, and celery 50 to 60 cents a dozen. Cucumbers \$1 to \$1.50 a box and peppers 50 to 75 cents. Tomatoes plenty at 35 to 50 cents a box, and egg plant \$1 to \$1.25 a box. Summer squash 75 cents a barrel crate. Marrow \$1 a barrel and turban \$1.25 to \$1.50. Mushrooms vary from \$1 to \$1.50 a pound.

Cabbages are lower at \$3 to \$4 per hundred and 30 to 60 cents a barrel. Cauliflowers are at 75 cents a barrel box. Lettuce 15 to 25 cents a bushel box, spinach 15 cents and parsley 15 to 20 cents. Romaine and escarole 30 cents a box and chicory a dozen. String beans and horizontal shell beans 75 cents to \$1 a bushel, Sieva \$1 to \$1.25 and Lima \$1.25 to \$1.50. Green corn 50 to 60 cents a box.

Potatoes in moderate receipt. Rose and Hebrons 40 to 45 cents a bushel, Green Mountains 45 to 50 cents, New York green white 40 to 45 cents, Jersey long white 45 cents and round white 35 cents. Sweet potatoes from \$1.75 to \$2 for Carolina yellow, \$2 to \$2.25 for Eastern Shore and Norfolk and \$2.25 to \$2.50 for Jersey double heads.

## Domestic and Foreign Fruit.

The receipts of apples last week were 21,008 barrels, but many of them were early fall apples not in demand for export, and prices were crowded down. Choice Gravenstein held at \$1.50 to \$2 a barrel, Williams \$1 to \$1.50, Duchess \$1, Pippins, Porters and Sweet Rough 75 cents to \$1, and Red Astrachan 50 cents to \$1. Common green 50 to 75 cents a barrel, red varieties 40 to 75 cents a box, green cooking 15 to 35 cents. Pears steady at \$2.50 to \$3.50 for Bartlett's, \$2 to \$2.50 for Clapp's Favorites.

Peaches are in liberal supply, native at 50 cents to \$1 a basket, Connecticut 40 cents to \$1, Michigan bushel baskets \$1.25 to \$1.75, Hudson river carriers two-basket \$1 to \$1.25, Georgia carriers yellow \$1.75 to \$2.25, white \$1.50 to \$1.75. Grapes in fair supply; cases Delaware \$1 to \$1.12, Niagara 75 to 85 cents, Concord and Worden 70 to 80 cents. Pony baskets Moore's Early 10 to 12 cents, Hartford and Champion 9 to 10 cents.

Blueberries in only moderate supply. New England at 8 to 10 cents and New Brunswick 10 to 13 cents. Cranberries quiet, \$5 to \$6 a barrel, \$1.75 to \$2.25 a box. Musk-melons, Colorado Rocky Ford, standard crate \$2, ordinary 30 cents to \$1 a crate. Watermelons from \$10 for small to \$16 for large per hundred.

California oranges scarce; 150 and 176 counts of Valencia \$5.25 to \$5.50, 20 to 216 counts \$5, 250 and 288 counts \$4.50 to \$4.75, seconds 50 cents less. Lemons 160 count \$4.25 to \$4.50.

## The Hay Trade.

Prices on hay are working downward, as the shipments consist of more new than old hay. In some places old hay is still offered and the prices are high, but not many have old hay better than No. 2. Shipments East have been a little more liberal than last week, but not enough to crowd the market at all.

Boston received 194 cars of hay, of which 14 were billed for export, and 33 cars of straw. Corresponding week last year, 161 cars of hay, of which 14 were for export, and 47 cars of straw. Choice timothy sold at \$18 to \$19 in large bales, \$17 to \$18 in small bales. No. 1, \$17 to \$18 in large bales and \$16 to \$17 in small bales. No. 2, either size, \$15 to \$16. No. 3, clover mixed and clover, \$11 to \$12. Rye straw abundant; long at \$13 to \$14.50, tangled \$10 to \$11, and oat straw \$9.

Receipts at New York were but little heavier than last week, having been 7,295 tons of hay and 800 tons of straw, but exports fell to 3817 bales. Choice and No. 1 were not in large supply, and the large

demand kept prices at \$21 for prime and \$19 to \$20 for No. 1. Lower grades are easier at \$15 to \$16 for No. 3, \$13 to \$15 for shipping. Clover mixed \$13 to \$16.50, clover \$13 to \$14. Long rye straw \$14.50 to \$15, wheat straw \$8 to \$11, and oat straw \$8 to \$10. Providence is well supplied with new hay and prices range about as in Boston.

The Hay Trade Journal gives the highest prices at various markets as \$21 at New York city, \$19 at Boston and Providence, \$17 at Philadelphia and Baltimore, \$16 at Richmond and Pittsburgh, \$14.50 at New Orleans, \$13 at Nashville, \$12.50 at Minneapolis, \$12 at Chicago, \$11.50 at Duluth, \$11 at St. Louis and \$9.50 at Kansas City.

## Export Apple Trade.

The shipments of apples last week included from Boston 13,020 barrels to Liverpool, from New York \$340 barrels to Liverpool, 1730 barrels to London, 5881 barrels to Glasgow, a total of 15,960 barrels, and from Montreal 2821 barrels to Liverpool, 2438 barrels to Glasgow and 769 barrels to Manchester, a total of 6288 barrels. Since season opened, 21,800 barrels from Boston, 35,152 barrels from New York, 12,446 barrels from Montreal. A cablegram from Liverpool says: "6500 barrels on the market; portion New England sold; prices lower in consequence of heavy arrivals; demand opened strong, but declined as the day advanced; Ramshorns selling \$4.20 to \$4.92, Gravensteins \$4.20 to \$5.04, fall varieties in general \$2.62 to \$3.60."

## Boston Fish Market.

The receipts of fish have not been as large during the past week, and with good demand the prices are higher on off-shore fish, and others are a little higher. Market cod sells at 2 1/2 cents a pound, large cod at 3 cents and steak cod at 7 cents. Haddock is 3 cents, hake and pollock 2 1/2 to 3 cents, flounders 3 1/2 cents and cusk 2 1/2 cents. Bass are 16 cents for striped, 8 cents for black and 6 cents for sea bass. No mackerel coming in but small at 8 cents each. Spanish mackerel 15 cents a pound, snappers 15 cents, pompano 12 cents, sheepshead 10 cents, blue fish 8 to 10 cents, and white fish 15 cents. Lake trout 8 cents, and sea trout 6 cents. Halibut 10 to 12 cents for white, 10 cents for chicken, and 8 cents for gray. Swordfish 10 cents, yellow perch 6 cents, and white perch 8 cents. Pickered scarce at 16 cents. Eastern salmon are 30 cents and Western 14 cents. Eels and fresh tongues are steady at 10 cents, and cheek at 8 cents. Tautog and scup at 6 cents. Frogs' legs in fair demand at \$1.25 a dozen. Clams 50 cents a gallon and \$3 a barrel. Shrimp \$1 a gallon. Lobsters alive 17 cents a pound and boiled 19 cents. Oysters in better demand at unchanged prices.

A mechanical sculptor, a machine automatically duplicating statuary, is a remarkable adaptation of the pantograph. The statue to be reproduced is placed upon a pedestal, where it is gone over by a small wheel on the end of a long arm, which connects with mechanism driving a cutter. A ball of clay is thus made into an exact copy.

The exports of dairy products from New York for the week ending Sept. 6, included 1800 packages of butter to London, 600 to Glasgow and 48 to Liverpool; 11,000 boxes of cheese to Liverpool, 1650 to Hull and 50 to Bremen, a total of 2838 packages of butter and 1435 boxes of cheese. —Pork and lard are not further unchanged: Short cuts and heavy backs \$22.50, long cut \$23, medium \$21.50, lean ends \$24.75, bean pork \$18 to \$19, fresh ribs 14 cents, corned and fresh shoulders 16 cents, corned shoulders 16 cents, and 11 cents in pails 12 to 12 1/2 cents, hams 13 to 14 cents, skinned hams 14 cents, sausage 11 to 13 cents, Frankfurt sausage 10 cents, boiled hams 19 to 19 1/2 cents, bacon 14 to 16 cents, bolognas 10 cents, pressed ham 13 cents, raw lean lard 12 cents, rendered leaf lard 12 cents, in pails 13 to 14 cents, pork tongues \$23.50, loose salt pork 14 cents, brisquets 13 cents, sausage meat 10 cents, corn-dressed hogs 8 1/2 cents.

Beef is very dull, with the market easy: Extra sides 11 1/2 to 12 cents, heavy 9 to 11 cents, good 7 to 8 cents, light grass and cows 4 to 7 cents, extra ribs 15 cents, good 10 to 15 cents, light 6 to 8 cents, extra ribs 9 cents, heavy 8 to 8 1/2 cents, good 7 cents, light 4 to 6 cents, backs 7 to 11 cents, rattles 4 to 7 cents, chucks 6 to 9 cents, short ribs 10 to 12 cents, rounds 7 to 10 cents, corned beef 8 to 10 cents, hams and loins 12 to 13 cents, loins 13 to 22 cents.

—Trephining the skull is known as a probable treatment used by pre-historic surgeons. It appears that the ancient practice still survives in Mexico, and Rev. A. Crump reports that natives of New Britain treat fractures from alligators by trephining with a piece of shell or a flake of obsidian. In eighty per cent of the cases recovery follows in two or three weeks, the deaths being due mostly to the original injury. In New Ireland, trephining is also performed for epilepsy and certain forms of insanity, and the natives declare that the cures are numerous, while injurious results are rare.

—The mutton market is easier: Spring lamb 6 to 7 cents, yearling 5 to 6 cents, mutton 6 to 7 cents, veals 9 to 10 cents, fancy and Brighton 10 to 10 1/2 cents.

—Exports of live stock and dressed beef last week included 190 cattle, 1412 sheep, 6022 quarters of beef from Boston, 1008 cattle, 15,200 quarters of beef from New York, 941 cattle, 980 quarters of beef from Baltimore, 938 cattle, 300 quarters of beef from Philadelphia, 3172 cattle, 411 sheep from Montreal, a total of 8000 cattle, 1233 sheep, 23,402 quarters of beef from all ports. Of these 3895 cattle, 1432 sheep, 18,602 quarters of beef went to Liverpool, 2534 cattle, 3600 quarters of beef to London, 933 cattle, 305 sheep to Glasgow, 340 cattle to Bristol, 348 cattle, 156 sheep to Manchester, and 1200 quarters of beef to Southampton. The visible supply of grain in the United States and Canada on Sept. 6 included 21,421,000 bushels of wheat, 2,233,000 bushels of corn, 4,092,000 bushels of oats, 587,000 bushels of rye and 323,000 bushels of barley. Compared with last week, this is an increase of 455,000 bushels of wheat, 1,120,000 bushels of corn, and 130,000 bushels of barley, with a decrease of 654,000 bushels of corn and 79,000 bushels of rye. One year ago there was a supply of 28,440,000 bushels of wheat, 13,123,000 bushels of corn, 7,728,000 bushels of oats, 1,445,000 bushels of rye and 683,000 bushels of barley.

This trade mark is stamped on every sheet of the best roofing tin made. This mark means "Most Favored," because this brand is most favored by architects, dealers, and builders everywhere. MF Roofing Tin was first made in Wales 50 years ago—later the process was improved in America—and the product developed, until now MF Roofing Tin is more in demand than any other brand. The superior quality of MF Roofing Tin is attested by the first prize awarded it at the Paris Exposition, 1900, where it was in competition with all the world.

The entire tinning process is effected by skilled hand labor, without the use of acids or rolls. The very best plates, a great amount of pure tin and new lead, the utmost care in manufacture, successfully contribute to making MF the best of all roofing. It is most economical, because it lasts longest—many roofs made of MF 50 years ago are sound as ever today. MF Roofing Tin is sold by dealers everywhere. Specify it in your building estimates. Ask your roofer,

or W. C. CRONEMEYER, Agent, write to Carnegie Building, Pittsburgh and receive illustrated book on roofing.

AMERICAN TIN PLATE COMPANY, NEW YORK.

—East-bound shipments by rail from Chicago for week ending Sept. 6 included 54,770 barrels of flour, 1,070,000 bushels of grain, 54,630,637 pounds of provisions. By lake, 32,985 barrels of flour, 2,065,814 bushels of grain, 67,000 pounds of provisions. One year ago, 93,815 barrels of flour, 1,041,000 bushels of grain, 63,454,901 pounds of provision by rail, and 31,675 barrels of flour, 3,636,367 bushels of grain and 1,184,900 pounds of provisions by lake.

—The great apple-bin of the United States has been shifted to the west of the Alleghenies. Benton County, Ark., contains more apple-trees than any other one county, and Missouri has more trees than any other one State. In the seven States that contain more than ten million trees each, no New England State is included.

—Wyoming and Massachusetts are far apart. There are many ranches in Wyoming. There are many shoe factories in Massachusetts. Yet, while visiting a Rockland factory the other day, a woman from Wyoming picked up a piece of sole leather bearing the brand of the ranchman at whose place she is most at home. She might have hunted through every other factory in the East and not found that brand. It was waiting for her, though, in the one place she did chance to visit,—just in the same way that strange coincidences lie in wait for all of us, to remind us how many things are unlikely, how few things are impossible.

—It would seem to be a very simple matter to dry potatoes, but in Germany, where potatoes are now extensively used for making alcohol and for feeding cattle, a prize of 30,000 marks, about \$7500, has been offered to the inventor of the best method of drying potatoes on a large scale. The cost of transportation is enormously reduced by drying, as may be seen from the fact that three and a half tons of fresh potatoes yield on 7000 pounds of dried ones. In consequence of the recent developments in the use of potatoes, German farmers have gone extensively into the raising of them.

## State and County Fairs.

STATE AND GENERAL EXHIBITIONS.  
Chicago Live Stock ..... Nov.  
Illinois, Springfield ..... Sept. 20.  
Indiana, Indianapolis ..... Sept. 20.  
Massachusetts Horticulture ..... Sept. 20-Oct. 1.  
Minnesota, Hamlin ..... Sept.  
Nova Scotia, Halifax ..... Sept.  
New Jersey Interstate, Trenton ..... Sept.  
New York, Syracuse ..... Sept.  
North Carolina, Raleigh ..... Sept.  
Ohio, Columbus ..... Aug. Sept.  
Oregon, Portland ..... Sept.  
Pennsylvania, Bethlehem ..... Sept.  
Pennsylvania Horticultural, Philadelphia ..... Nov.  
Philadelphia Live Stock ..... Oct.  
St. Louis, St. Louis ..... Oct.  
South Carolina, Columbia ..... Oct. Nov.

MASSACHUSETTS.  
Amesbury and Salisbury, Amesbury ..... Sept. 23-25.  
Taunton, Taunton ..... Sept. 23-25.  
Essex, Peabody ..... Sept. 16-18.  
Franklin, Greenfield ..... Sept. 17-18.  
Hampden East, Palmer ..... Sept. 26-27.  
Hampshire, Amherst ..... Sept. 16-17.  
Hampshire and Franklin, Northampton ..... Oct. 1-2.  
Hillsdale, Cummington ..... Sept. 23-24.  
Hingham, Hingham ..... Sept. 23-24.  
Housatonic, Great Barrington ..... Sept. 24-25.  
Manufacturers' Agt., North Attleboro ..... Oct. 7-9.  
Middlesex South, Framingham ..... Sept. 16-17.  
Spencer, Spencer ..... Sept. 18-19.  
Weymouth, South Weymouth ..... Sept. 25-26.  
Worcester West, Barre ..... Sept. 25-26.

MAINE.  
Durham Agricultural, Durham ..... Sept. 23-25.  
Aroostook County, Houlton ..... Sept. 23-25.  
Southern Aroostook, Sherman Mills ..... Sept. 23-25.  
Madawaska, Madawaska ..... Sept. 16-18.  
Cumberland County, Gorham ..... Sept. 16-18.  
Hampden Cumberland, Harrison ..... Oct. 7-9.  
Cumberland Farmers' Club, W. Cumberland Sept. 23-24.  
Gray Park Association, Gray Corner ..... Sept. 30-Oct. 2.  
Bridgton Farmers' Club, Bridgton ..... Sept. 16-17.  
New Gloucester and Dixville, Upper Gloucester ..... Sept. 23-25.  
Lakes View Park, East Sebago ..... Sept. 23-25.  
Aroostook County, Houlton ..... Sept. 16-18.  
Hancock County Agricultural, Bluehill ..... Sept. 16-18.  
Hancock County Fair Association, Ellsworth ..... Sept. 16-18.  
Northern Hancock, Amherst ..... Sept. 24-25.  
Ellen Agricultural, Ellen ..... Sept. 24-25.  
Kennebec County, Readfield ..... Sept. 23-25.  
South Kennebec, South Windsor ..... Sept. 16-18.  
North Knox, Union ..... Sept. 23-25.  
Lincoln County, Bangor ..... Sept. 30-Oct. 2.  
Bristol, Bristol Mills ..... Sept. 23-25.  
Oxford County, South Paris ..... Sept. 16-18.  
West Oxford, Fryeburg ..... Sept. 30-Oct. 2.  
Androscoggin Valley, Canton ..... Sept. 23-25.  
Northern Oxford, Andover ..... Oct. 2-3.  
Penobscot County, Hampden ..... Sept. 23-25.  
West Penobscot, Baxter ..... Sept. 30-Oct. 2.

East Edgmont Farmers' Club, East Edgmont, Franklin County, Farmington ..... Sept. 23-25.  
Piscataway County, Foxcroft ..... Sept. 23-25.  
Sagadahoc County, Topsham ..... Oct. 14.  
Richmond Farmers' Club, Richmond ..... Sept. 16-18.  
Waldo and Penobscot, Monro ..... Sept. 16-18.  
North Waldo Union ..... Sept. 23-25.  
West Waldo, Liberty ..... Sept. 23-25.  
North Waldo Union, Princeton ..... Sept. 23-25.  
West Waldo Union, Cherryfield ..... Sept. 16-18.  
Shapleigh and Acton, Acton ..... Oct. 7-9.  
Springvale A. & M. Association, Springvale ..... Sept. 23-25.

## NEW HAMPSHIRE.

Rochester, Rochester ..... Sept. 23-25.

## ARE YOU FOND OF CATS?

Probably there isn't a pet in the world as popular as a cat. You find them everywhere, with the rich and the poor. What do you feed them with and how do you wash them? We would like you to try our Walnut Cat Food, it will invigorate them, increase their appetite, makes them well and strong. It is a substance to be mixed in other food. Has your cat a diseased skin? Has it fleas? If so get a bottle of Walnut Cat Wash. It will free them from all such and promote the hair. If you have a pet cat or a valuable Angora, you cannot afford to be without them. Hundreds of testimonials. Either Food or Wash, price 50 cents per bottle. Or \$4.50 per dozen. If your druggist or dealer hasn't them send us.

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For Dogs, Cats, Horses, Cattle and Sheep. All Skin Diseases they are subject to can be cured by this valuable remedy. Also

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HOW TO MAKE \$500 A YEAR KEEPING POULTRY.

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Lot of beautiful Angora Kittens in exquisite colors charming dispositions and very gentle. Send 10 cts. for pictures illustrating.

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# MASSACHUSETTS PLOUGHMAN

R, the good oyster!

Jamaica has her sugar troubles as well as Cuba.

The seven-master Thomas W. Lawson is now an actual fact in ocean traffic.

We have got rid of the Indian, but we have no desire to get rid of his summer.

During the coming season the codfish ball bids fair to be more popular than ever, but Society will probably pay it very little attention.

If Prince Cupid is elected to the Hawaiian legislature we shall expect that body to take an unusual interest in sentimental questions.

One thing, at least, seems to be pretty well understood about the Philippines: the Filipino and the Moro are two very different persons.

Most of us will agree with the authorities of the Navy Yard that the enlargement could be put to more important uses than housing prisoners.

The G. A. R. is certainly nothing if not up to date, difficult as it is to imagine an automobile parade as a feature of the coming encampment at Washington.

Ex-Mayor Garretson, in "defending the smart set" against the recent attack of Mr. Waterson, seems to have selected his cudgel from the same wood pile.

Mrs. Goodman, who chased the intruder out of her domicile at the muzzle of her husband's revolver, was evidently determined to live up to her name.

The popularity of the vacation schools of last summer is no reason for jumping to the conclusion that all children are equally delighted because the schools have opened.

It is strong proof of the genuineness of German feeling that it should have expressed itself without hesitation to an American general even when he is named French.

Admiral Schley is richer by an onyx clock and a candlestick, the latest gifts from an admiring people. Onyx clocks, as one may learn by observation, rank high among the costs of popularity.

The plain, ordinary dog has missed his dog days, but perhaps he may take comfort in the reports of the glorious success with which the aristocracy of his kind have been receiving the honors of Newport.

Admiral Taylor is endeavoring to solve the problem: why do so many of the apprentices not re-enlist in the navy. One reason may be that the training which they get in the navy excellently fits them for a variety of shore berths.

Gunpowder and picnic parties ought never to be brought in juxtaposition. The disaster of the early part of the week goes to prove what has already been noted; that the islands in the harbor are not at present very well adapted to pleasure parties.

A disinterested observer cannot but wonder what is happening to the vocabularies of our men of learning. Here is a New Haven professor denouncing a "whole gang" of persons with whom he does not agree on the question of baptism. We have nothing to say against his denouncing any person or any group of persons whom he is moved to denounce, but does denounce make it altogether necessary to divest the English language of dignity? Or are our public characters outgrowing the theory that however mad a man may be, he should not let the others see?

The Railroad Gazette assumes that America, or North America, and other highly civilized countries have now about all the transportation facilities they need. It says that while North America built 55,700 miles of railroad between 1880 and 1894, it built but 33,850 miles between 1890 and 1900, or about two-fifths as much. The miles built in the whole world were about two-thirds as much in the last ten years as in the ten years previous. The United States has a mile of railroad for every 383 inhabitants. Europe one for 2267 inhabitants, and British India one for 12,400. It gives as reasons for this larger percentage of roads in the United States the less cost of building, including steel rails, the better arrangements of our roads, and that the Americans travel more than Europeans. One reason for the less building of steam railroads during the ten years last past may also be the number of miles of electric railroad built, which are reaching many points where it has not been thought a steam road would be profitable.

It is reported that 19,570 persons from the United States took up homesteads in Manitoba and the Northern Territories of the Canadian Dominion during the year ending June 30, 1902. The cheapness of the Canadian lands, which could be purchased at \$3 per acre in 1900, has helped to boom this movement, although prices now have been advanced to \$7 or \$8 per acre. Wheat and flour are claimed to be produced at as low or lower cost there as in Minnesota or the Dakotas, and they only need the abolition of duties to supply our markets. But while this increase of emigration from the United States to Canada really means about five persons to each homestead taken up, it does not mean an influx of Americans into that country. We have little doubt that three-fourths of them or more are of the Germans and Scandinavians who have been in the Northwestern States, and while they are good citizens whom we should like to retain, they have up proven the best of farmers at diversified farming, though they are able to grow good crops of grain. We are not worrying so much about the loss of some of the advent of twice their number who will come to fill their places. We could spare twice that number to Canada each year and then have a few left.

We have frequently written that the best time to sell farm produce is when it is ready for market, and a fair price can be obtained, for it, even if it is not of the class usually called perishable. The shrinkage often causes a loss that more than balances any increase in price gained by holding it until later in the season. But this does not mean that it should be sold at an unfair price, or that undue credit should be given to the takers by would-be buyers, who wish to obtain the goods at a low price. We think

the reports of a large crop of apples this year have been exaggerated by this class of men, in order to keep the buying price down. There is probably a fair crop, larger than last year, but by no means a record-breaking crop, and as the export demand is good, and likely to remain so, we would think it wise for those who have good fruit, and can pack it in good shape, to hold it at least until the fall apples are out of the way. They seem to be more abundant than last year, sound apples that are likely to keep all winter, and we shall not be surprised to see the prices for the latter go as high as they did last winter. We may be mistaken, but are willing for that to go on record as our guess.

The recent accident at Pittsfield, by which the lives of President Roosevelt and Governor Crane were placed in so much danger, emphasizes one thing, which is that there is great need of some regulation of the running of trolley cars upon country roads, as they are crossing the streets at grade, or making sudden curves. We shall not know until the evidence is in, and perhaps not then, whether the car was making ten miles an hour or thirty when the accident happened, but most of us know that they are often run at a dangerous speed over crossings. We have seen cars cross a street that were apparently going forty miles an hour, and certainly not less than twenty miles, when the buildings prevented the motorman from seeing what was on the side street until within thirty feet of it, and more than once at such a crossing have seen horses pulled to a standstill with their noses within less than ten feet of the car, or turned to one side at the risk of overturning the carriage. Yet a remonstrance made to the president of the company only brought the reply that "the cars must make their schedule time." We do not care if they run sixty miles an hour if there is a straight road and the motorman can see all points ahead in time to stop his car before an accident, but to rush at such speed where they cannot see we consider criminal.

## Potatoes for New England.

Probably no one crop is raised by such a large majority of the farmers of New England, with individual intent of having a surplus for market, for money, or exchange for household supplies as potatoes.

This marketable surplus ranges all the way from a few bushels to several thousand bushels per farm.

For general potato growing the two leading counties are Aroostook in Maine and Coos in New Hampshire, though that section of Massachusetts and Rhode Island which is able to come under the wing of the reputation established, as Bristol Ferry, produces liberally for early market, in Boston, Providence and nearby market towns.

While the potato proves a sure crop in the northern section, yielding satisfactory profits in Coos County an average of three years in five, and in Aroostook three years in four, by judicious selection of seed, soil and time of planting it is possible to make the crop more of a surety than at present in most all sections of New England.

Many advocate planting as early as the land can be prepared, but, while this course may possess some advantages, it also has contra indications.

In the central and southern sections, if for winter use and planted early, the seed should be the latest maturing variety obtainable, having the elements of quality, etc., in perfection.

It is just as inconsistent to plant an Early Hebron or Rose in or south of the fortieth degree of latitude, in the month of April or May, and expect to harvest a product, which, stored under average conditions, will furnish the table with first quality food the next March, as to depend on Gravenstein apples for fruit at the same table.

While with late planting of early varieties we avoid a large share of the fight with bugs, and are able to follow an early crop of barley or clover in these Southern latitudes, thus putting the soil into ideal condition for the perfection of the potato, we also take possibly additional chance of damage by blight.

However, there are farmers in Pennsylvania who, on the higher altitude, plant early seed in August and harvest the latter part of October, or early November, crops of tubers which even an Aroostook farmer would stop to view.

But there are a few rules of practice which experience has proved should be adopted by the average New England farmer to place an insurance policy on his potato raising, and as this paper is intended more especially for those more extensive areas which have been under cultivation for long terms of years, some suggestions will not apply with equal force to the conditions attendant upon new lands and unimproved soils.

The best soil is a medium sandy loam, though raised successfully on others both light and heavy, but it must have reliable supply of moisture while not permitting standing water either visible or beneath the surface. The potato is a liberal feeder as well as persistent drinker. Hence the soil should be well supplied with plant food. Clover turned under or rye is good. Liberal application of barn manure plowed in deeply either on soil or old ground.

If a soil it must be thoroughly reduced to prevent large air spaces beneath. Ten inches is good depth to plow. Remember the roots of the potato plant are as long as the tops, and will produce large tubers if the farmer does not leave the land to be plowed by the growing plant.

It is generally conceded that commercial fertilizers are a necessity to the greatest profit. Ammonia probably not less than eight or more than sixteen hundred pounds per acre of the best obtainable will meet the need most profitably. If the lesser all in the row at planting, if the greater half between the rows when the potatoes are cultivated the last time, and run in the soil with the cultivator.

Large growers plant thirty-two inches between rows and twelve inches between pieces out to two eyes, using about twelve bushels of seed per acre. The writer seeded a plot of ten acres one spring in Aroostook with an Apinwall planter, using hand-out seed, and it ran a little under 110 bushels of seed, while hand dropping at the same time gave practically as even stand used only 9½ to ten bushels per acre, but the saving of seed did not compensate for the extra expense of hard work, and skips were about equal.

Four inches is proper depth to cover the seed, according to the consensus of opinion of planters in all sections averaged.

Where hand work is used it may be satisfactorily expedited by opening the furrow with a light plow or winged cultivator, and the seed all dropped, and then the whole plot covered with a pair of horses and a regular land drag or float crossing the rows.

Where planted with a planter or in the last-mentioned way, the smoothing-harrow is the proper tool until the plants are four to



E. W. HORNUNG,  
Author of "The Shadow of the Rope."

six inches high, then use the cultivators and horse hoes.

A friend of the writer's, who never seeds less than seventy-five acres, assigns the work from time of planting till harvest is begun at the rate of twenty-five acres to one man and a pair of horses, using riding, two row cultivators, sprayers, etc., and finds it just meets the need of the crop. On high and dry land flat cultivation, while on wet land they should be hilled liberally.

Scab and blight are now reckoned as probabilities to be provided against by all large growers who would naturally carry insurance against fire on their buildings.

Where present, scab should be prevented by subjecting the seed to a treatment of either sulphur fumes or corrosive sublimate before planting. And blight is now controlled very satisfactorily by applying Bordeaux mixture, first July 25, second Aug. 15 and third Sept. 5, while nothing better than paris green has been found to use with it for bugs and flea beetles or alone previously.

The most laborious part of the whole process of potato raising is the digging, and although the number of machines in use for lifting the tubers are numerous, yet not one has absolutely reached the need of the average small raiser of potatoes, even field covers at most but few acres.

We have seen the potatoes well lifted from the row where they were well ridged or hilled, by the use of a spring tooth harrow, with the teeth set deeply, as by any of the cheap machines on the market; but with these, as with all others, the success of the operation was materially affected by the condition of the tops at time of digging.

If a farmer believes he has the proper conditions it will pay to try the spring-tooth.

For early potatoes on sod land, on which fertilizers alone are to be used, plow as early as possible the preceding fall.

## Apple Tree Tent Caterpillar.

The apple tree tent caterpillar is too well known to most of us by their conspicuous white nests or tents, and the stripping of the foliage in May and June. They are not the worst of our fruit-tree pests, as they can be destroyed very easily by spraying with Paris green or some other arsenical preparation by brushing down the nests with a stiff brush, or in small orchards even by burning with kerosene, which is put on a rag or bundle of waste on a pole, and lighted. A half-pint of kerosene can be made to destroy all the caterpillars on the trees in a village garden, and the fire does not need to be held under them long enough to injure a green branch. We have also destroyed them before the days of kerosene with a light charge of powder well aimed at the nests. All these methods excepting the spraying are most effectual at morning or evening, or on a cloudy day, when they congregate at the nest.

The eggs are deposited in the fall near the ends of the twigs, and can be readily seen as a ring around the twig, glistening white when the dew is on and the sun is shining brightly through the branches. A long-handled tree pruner can quickly clip them off, and they should be collected and burned. At Newfield, N. H., the village improvement association offered the children ten cents per hundred clusters, and 2500 clusters were collected, and as they probably averaged more than 100 eggs in a cluster, 1,250,000 eggs or more were destroyed at a cost of \$3.25.

The fall web worm differs from the tent caterpillar in that it does not come until August or September, and then makes no tent, but gathers a few leaves into its webs and feeds on these until it has destroyed them, then encloses more leaves until, perhaps, it will have the whole bunch. As they feed entirely within the web the spraying has not been very effectual against, nor is it desirable to apply poisons to the tree then, and the best method is when these bunches of dead leaves are found, out and burn them.

The so-called forest tent caterpillar, which has done so much damage to shade trees and forest trees in northern New England and New York, also differs from either of the above, as it makes no tent or nest, but will crawl over the trees and from one to another, eating every green leaf. This often enters the orchards and attacks fruit trees and shrubs, seeming almost regardless of varieties, but they prefer the shelter and shade of a thick forest, and seem especially fond of the sugar maple trees.

The apple tree tent caterpillar has a decided preference for the wild black cherry and the choke cherry, with apple as a second choice, but it also attacks cherry, plum, peach, rose, witch hazel, beech, barberry, oak, willow, poplar and birch. There have been large numbers of them in Connecticut this year, and the veteran ex-Secretary of Agriculture, T. S. Gold, says they have not

been as abundant there for sixty-six years as this year.

The moths are four winged, light reddish brown in color, with two whitish stripes across the fore wings. The female is about 1½ and the male 1¼ inches from tip to tip of wing, usually a little darker in color than the female. She lays her eggs about the last of June or first of July, and they begin hatching the following April. Not all the eggs hatch at once, and it may be that three weeks will elapse between the first tent and the last. They feed about six weeks, and when nearly full grown they will devour large quantities of leaves. Then they will cease eating and spin white cocoons in the grass about buildings or fences near the orchard, or even under the rough bark of the tree. There is luckily but one brood a year.

While they, like the forest caterpillar, are subject to bacterial diseases, and to the parasitic ichneumonid fly, birds also help to destroy many of them, the cuckoo, crow, oriole, chickadee, chipping sparrow, yellow warbler and red-eyed vireo being the most active, but other warblers, vireos and sparrows taking a few.

While some advocate the destruction of the wild cherry and seedling apple trees near the orchards, others believe it better to let them stand as a trap for the caterpillars, as the nests or the egg clusters will be more easily reached on them than on the taller trees of the orchard. But they should not be neglected, as from them they will invade the orchard another season.

The spray used for them should be a half-pint of Paris green or three pounds of arsenate of lead in fifty gallons of water, or of Bordeaux mixture. If Paris green is used in water add three pounds of fresh lime for each pound of Paris green to prevent burning the foliage. This is not needed in Bordeaux mixture or with arsenate of lead.

This caterpillar is a native of North America, and has been found in nearly all parts of the United States and Canada, but is most abundant in the Eastern States. Damage done by it was reported in 1646.

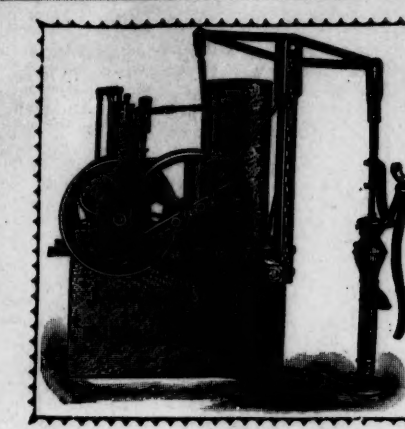
## Systematic Storing of Humus.

One of the greatest advantages I obtain from a cover crop is the constant storing in the soil of humus. A soil rich in humus is also a soil properly drained. In many soils the lack of humus permits the best elements of fertility, no matter in what form applied, to leach out and go to waste. Sometimes they merely leach down to the subsoil, but even there they are wasted to most crops. Our surface-feeding crops will not go down to the soil after rich humus or fertility leached down there, because of a too porous and open surface soil. The cover crop plants the humus in the surface soil, and thereby holds the fertilizing elements of potash, phosphoric acid and nitrogen. They are held there in a position where the roots of the plants can most readily reach and utilize them.

Any cover crop will do this work. Some, of course, answer the purpose much better than others, but a crop that furnishes an abundance of green foliage will in time fill the soil with rich humus. Therefore cover crops have been used by me continually for systematic storing of humus in the soil. My land is so open and porous that nearly all fertilizers would quickly leach through if it were not for this practice of planting cover crops to prevent the waste. Humus in the soil gives strength and vitality to plants. It furnishes the bone and marrow to the soil, and makes it rich in possibilities. When the soil is drained steadily year after year, and no new humus added, it becomes lifeless, and no amount of artificial fertilization will compensate for the loss.

## Cheap Irrigation.

As an illustration of the value of a little inventive genius in utilizing all possible advantages of one's surroundings, there is a small grower of strawberries and other small fruit who makes every rain store water for irrigating his plants in dry weather. In his section of the country dry weather at the critical fruit-growing period makes his crop some years very uncertain, but if he can mature and ripen a full crop he realizes a good deal of profit. Consequently he has been led to protect his interest by means of an invention of his own. All the water which falls on his barn and house is conducted by leaders to a huge tank made of wood and cement inside to make water tight. This tank holds enough water to irrigate his plot of five acres through almost any ordinary drought. As an artificial water gatherer he has arranged a series of slanting wooden frames which he covers with canvas in the spring season to catch



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the rain water. By means of these he is enabled to store the water which falls over a considerable area. The canvas covering is put up only prior to the dry period of early summer, and taken down when the crops have been harvested. They are sort of emergency water-gatherers. The water running down the sides of these canvas slopes is caught in a gutter and conducted to the storage tank where it is kept until needed.

The construction of this tank, with its capacity of 50,000 gallons, was the most expensive part of the work, and it required a good deal of work and planning to locate it so that it would have a slight elevation above the flat garden. As it stands today it supplies a very slight pressure to the water, and the pipes and hose which tap the tank can carry the water to any part of the five acres. During long periods of dry weather the man keeps his crops supplied with sufficient moisture to make them grow continuously. There has never been a time in the past five years when he lost anything from drought, although farmers all around repeatedly lost a part or all of their small berry crops. The invention and work certainly pays big interest on the investment, and should serve to encourage others to make some provision against destructive dry weather, where so much depends upon the results.

## Three Good Crops.

Alfalfa, Canada peas and clover have become generally recognized as three American crops at the foundation of all good farming, and without them it would be difficult indeed to keep up the full fertility of our soils, and provide good food for cattle. Canada field peas in the more northerly section of States, when sown with oats and cut for hay, make most excellent returns to the acre. Canada field peas furnish a good crop on fair soil, and they help greatly to make a good crop of winter food in the form of hay.

Alfalfa has such a reputation in parts of the cattle-raising States of the West that nothing but praise is generally heard of it. But one should be a little cautious in experimenting with this crop in sections where it has not proved its worth. A good many lands and climates appear unsuited to alfalfa, just as they are to Canada field peas.

It must be remembered that these two crops have been produced in their ideal condition in States where clover was either considered unsuitable or too expensive and difficult to catch. Unquestionably alfalfa has succeeded on many soils where today it is unknown, but wisdom requires that one should be satisfied that his farm was adapted to it before plunging in too heavily. One of the mistakes made in modern farming is to attempt the impossible; that is, try crops that have proven successful in other parts of the country, but not yet tried at home.

A good deal may be said in the same vein about clover. There is no question in the minds of Eastern farmers about the great value of this crop, but Southern and Western farmers will not have clover as a part of a system of rotation where they can use alfalfa or Southern cow peas. Clover cannot be abandoned today any more than many of our other old crops, but it has its particular territories, and it should not be the part of any judicious farmer to condemn all farming where it is used as the foundation of all other crops. Our agricultural experts are gradually experimenting with the different crops and assigning certain specified territories to them. When we know exactly where to limit the clover line, and where the alfalfa and Canada field peas and the Southern cow peas, there will be less haphazard recommendation of crops for parts of the country where they will not prove successful.

## Potato Rot.

The continued wet weather following the blight is leading to serious rotting of potatoes. The Vermont experiment station is receiving so many inquiries as to the matter, that the following statements seem timely: The late blight or "rust" which has been so prevalent this year, is caused by a fungus, a kind of mildew, which is carried through the winter in the seed potato and so far as known only in this way. Where such infected potatoes are planted the fungus develops in the potato shoots and finally causes the blight of the leaves, providing weather conditions are at all favorable. The germs or spores are produced in enormous numbers on these blighting leaves, and by these the infection is spread to neighboring plants. Many of the spores fall to the ground also, and invading the tubers, cause the rot.

Spraying with bordeaux mixture kills these spores, and so prevents both the blight of the leaves and the rot of the tubers. The plants at the experiment station farm, which have been sprayed, are as green and healthy now (Sept. 6) as they were a month ago, whereas the rows in the field left unsprayed are dead. Many farmers through out the State have had equally good results from spraying. Where the plants were sprayed little rot is developing, but in the unprotected fields where the tops have blighted, rot is serious.

The question is being asked whether it is better to dig at once in these fields. The Experiment stations officers advise prompt digging. They have not decided this by experiments, however, so are now carrying on some to settle the matter. A half-dozen fields have been selected on different soils, where the vines are blighted. One-fourth of the rows in each field were dug on Aug. 25, one-fourth on Sept. 6, one-fourth on Sept. 30. The conditions as to total yield, amount of rot and keeping qualities will then be compared.

Some other interesting experiments upon potatoes are also under way, the results of which will be published later. One of these is to determine whether when the vines make a very rank growth it is better to cut them back. Another seeks to find out whether spraying the soil will tend to check the rot.

## A VACATION TRIP

Through America's Finest Scenery—Hudson River, Albany, New York, Oct. 9, 1902.

From Boston, through the most interesting cities of Massachusetts to Albany, down the historic Hudson river by daylight, with its historic and scenic points of interest, to New York city, returning via Fall River Line Steamer.

The excursion starts Thursday morning, October 9, and is due to return either Saturday, October 11, or Sunday, October 12. It is one of the highest class excursions given by any railroad in the country, and at a time when it will be most appreciated by those who enjoy traveling. It is exclusive, as the number of tickets issued will be limited. Every arrangement will be perfect. There is nothing cheap about the excursion except the price, which is the nominal sum of \$5, the cost of an ordinary ticket between Boston and New York one way.

The conditions under which this excursion is given are ideal, and can but appeal to every lover of travel. The time of the year is most opportune. The weather is settled, and the golden October sunshine will make each day a period of full enjoyment. According to the itinerary the excursion starts from South Station, Boston, at 8.30, Thursday morning, Oct. 9. The journey from Boston to Albany will be on one of the Boston & Albany's luxurious trains, over one of the finest road-beds in existence. The traveler will pass through the great commercial centers of Massachusetts, Worcester and Springfield, and through the heart of the famous Berkshire Hills, where the natural beauty of the scenery is unrivaled, passing finally through the "Albany Gateway" to the city of Albany, where the train is due at 2.35 P. M. A representative of the Albany Chamber of Commerce will be on the train to give information as to points of interest in the city of Albany, to those who wish to remain over in Albany for the day are many things worth seeing, including the State Capitol, the handsomest and most elaborate capitol building of any State in the Union. In the event of remaining over in Albany, the excursionist takes the Steamer New York of the famous Hudson River Day Line, which leaves Albany at 8.30 A. M. on Friday, Oct. 10.

This excursion ticket will be accepted on any train out of Boston to Albany, over the Boston & Albany Road, during the day of Oct. 9, with the single exception of train No. 15, which leaves the South Station at 10.45 A. M. It is not, therefore, absolutely necessary to take the special train at 8.30 A. M., but suburban residents or those living even at a distance from Boston can leave their homes on the morning of Oct. 9 and join the main excursion in Albany by taking a later train.

Remember these three things: The date of the excursion is Thursday, Oct. 9. The time the special train leaves South Station is 8.30 A. M. The price for the grand tour, Boston-Albany-New York City-Boston, is only \$5.

For illustrated circulars descriptive of the route to be traversed, and for details not furnished in this article, upon which the traveler may wish to be informed, call on nearest ticket agent, or address A. S. Hanson, G. P. A., Boston, Mass.

Dr. Wessely of Vienna has discovered in a papyrus some new sayings of Diogenes the Cynic. There are proverbs and a number of tales. The papyrus is in wretched condition and only a few columns are legible, but it must have contained about three hundred anecdotes of the philosopher.

## \$3.00 in the Rate, Thursday, Oct. 9, is the Date.

Of the last grand excursion from the Boston & Albany. Through Worcester, Springfield, Pittsfield, the Berkshires Hills, to Albany; the Hudson River boats (either night or day) to New York, the Fall River Line and N. Y. N. H. & H. to Boston in \$5. Send for descriptive leaflet.

A. S. HANSON, Gen. Pass. Agent, Boston.

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A Special Fast Express on the BOSTON & ALBANY R.R. (N. Y. C. & H. R. R. Co. Leave) at South Station Thursday, Oct. 9, at 8.30 A. M., passing through the most beautiful and prosperous section of Massachusetts to Albany, thence by either day or night boat down the historic and beautiful Hudson River to New York City, returning via Fall River Line Steamer.

5¢ HUDSON RIVER 5¢

Passing the Catskills, West Point and the Palisades, arriving in NEW YORK CITY at 6.00 A. M. or 6.00 P. M. Friday, Oct. 10, Union by the palatial Hudson River Line to Boston, arriving at 7.00 A. M. either Saturday or Sunday. Tickets on sale at principal stations. For further particulars address A. S. HANSON, Gen'l Pass. Agt., Boston.

Oct. 9 \$5.00 Oct. 9

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small stove. No extra expense for fuel. Easily operated.

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rookery. Makes different markets, all

uses, with same blade. Extracts Roman











## DYSPEPSIA.

George S. Scully of 75 Nassau street, New York, says: "For years I have been troubled with rheumatism and dyspepsia, and I came to the conclusion to try you pills. I immediately found great relief from their use; I feel like a new man since I commenced taking them, and would not be without them. The drowsy, sleepy feeling I used to have has entirely disappeared. The dyspepsia has left me, and my rheumatism is gone entirely. I am satisfied if any one so afflicted will give Radway's Pills a trial they will surely cure them, for I believe it all comes from the system being out of order—the liver not doing its work."

## Radway's Pills

cure all Disorders of the Stomach, Bowels, Kidneys, Bladder, Dizziness, Costiveness, Piles, Sick Headache, Female Complaints, Biliousness, Indigestion, Constipation and all Disorders of the Liver. 25c per box. At Drug-gists or by mail. Radway & Co., 55 Elm street, New York. Be sure to get "Radway's" and see that the name is on what you buy.

## Poetry.

## AN AUGUST AFTERNOON.

Yonder the meadows stretch their languid length,  
So crisp and brown beneath the burning sun,  
Save where two wavy pencil lines of green  
Reveal the shallow brook now almost still.  
And here and there, by friendly shadows kissed,  
A spot with semblance to fertility.  
The patient bee, in disappointed quest  
Of nectar, withers the clover tops among,  
With drowsy hum he wafts across the lea,  
Where shrill ring woodland mockings invite.  
Dance Locust, too, with senses keen, alert,  
As to the dry, shrivelled leaves he flies,  
Like tiny buzz saws in the heated air,  
Which shakes and quivers as a furnace breath.  
And now and then a lonely wood-bird's note  
Falls on the ear from out the quietude  
Of mellow haze that enveils the sober hills.  
The sobbing sea, in tender monotone,  
Lapping the broadening edge of peaceful shore,  
Breathes forth no token, gives no word or sign  
That one could guess what havoc might be  
wrought.  
And hearts made sad in such a few short hours,  
O cruel sea! thou hold'st thy secret well.  
The hush, the calm that now upon thee rests  
Betakes my memory to Bible lore.  
A scene of tumult and of tempest rife,  
With angry billows threatening dark,  
The roar half hid by cries of helpless men.  
The form of One moves quickly to their aid,  
Behold! a shining sea beneath the gloom,  
Lit by the deep compassion of a soul,  
That, reaching far beyond all human thought,  
All human woes to "swage" not only,  
The inner heart strings, "naught His gentle touch,  
Are made to vibrate with a joy divine.  
His gracious presence ever at our side,  
Rebukes by voice and gesture infinite.  
His "Peace be still" is echoed o'er the wave,  
And age on age reverberates at will.  
Above life's wave, the surge and roll and toss—  
The low, sweet cadence of the King of Kings.  
K. PAULINE ABBOTT.

## THE MORNING SUMMONS.

When the mist is on the river, and the haze is on  
the hills,  
And the promise of the springtime all the ample  
heaven fills;  
When the shy things in the wood-haunts and the  
hardly on the plains  
Catch up heart and soul in a leaping life through  
winter's sluggish veins;  
Then the summons of the morning like a bugle  
notes the dawn,  
Then the soul of man grows larger, like a flower  
from the bud;  
For the hope of high endeavor is a cordial half  
divine,  
And the banner cry of onward calls the laggards  
into line.  
There is glamour of the moonlight when the stars  
rain peace below,  
But the stir and smell of morning is a better thing  
to know;  
While the night is hushed and holden and tran-  
quillized by dreamy song,  
Lo, the dawn brings dew and fire and the rapture  
of the strong.  
—Richard Burton, in Atlantic.

## OUR AMERICAN QUEEN.

She seeks her garden in the morn,  
And plans and dyes with care;  
A glancing bonnet crowns her head,  
And hides her golden hair.  
She's not afraid to soil her hands;  
She's busy as a bee;  
The spade she handles with much skill;  
The queen of gardens is she.  
And later on the links she's found,  
With skirt to match her hose;  
Just note the color of her cheeks,  
And watch her graceful pose.  
The caddy hands her out her club,  
And then he makes the tee;  
She drives, and you can't see at once  
The queen of clubs is she.  
The afternoon will find her out  
To see a game of golf;  
She knows the fine plays when they're made,  
And does applaud them all.  
She's pleased, of course, when her boys win,  
And claps her hands with glee;  
You can't lose her on the field—  
A diamond queen is she.  
At night you see her at the dance,  
Bewildering and sweet;  
A score of men about her would  
Do homage at her feet;  
She smiles, and all the world smiles, too.  
So it appears to me  
With one accord we proclaim  
The queen of hearts is she.  
—Yonkers Statesman.

## THE SUMMER MAN.

I've seen him by the sounding sea,  
And where the mountains frown,  
And Newport does not know him more  
Than does the country town.  
He kisses all the pretty girls,  
They like it, too, I ween,  
And yet he is a married man,  
His other half I've seen.  
Nay, think him no outrageous flirt,  
To lovers he's a boon.  
The biggest Summer man of all,  
The man within the moon.  
—New York Times.  
...I lay my head upon Thy infinite heart,  
I hide beneath the shelter of Thy wing;  
Pursued and tempted, helpless, I must cling  
To Thee, my Father; bid me not depart,  
For sin and death pursue, and Life is where  
Thou art!  
...He who suns and worlds upholdeth  
Lends us His upholding hand;  
He the ages who unfoldeth  
Doth our times and ways command.  
God is for us;  
In His strength and stay we stand.  
—Thomas H. Gill.

## Miscellaneous.

## The Most Beautiful Poem.

Now, as the time was come for Prince Hemmi to think of marrying, counselors and courtiers he sought him to choose a bride. The prince, however, gave them no satisfaction. Indifferently he glanced at the portraits of the young princesses which gold-trimmed ambassadors brought him. Blondes there were and brunettes; thin ones and fat, pretty ones and ugly. And even in the latter the painter had found a way to bring out some beauty, and had exaggerated it in order to turn attention from the others. For instance, from the midst of irregular features looked out deep eyes; in another, a too-large nose was offset by cherry lips.

But Prince Hemmi preserved his weary attitude. He sighed, shook his head, and, shutting himself up in his apartment, took his lute and began to sing, leaving to his prime minister the care of dismissing the ambassadors as best he could, by covering with words of flattery the refusal of the prince to fall in love.

The whole court was filled with lamentation. The entire kingdom groaned at having so morose a prince for sovereign. The old King and the Queen-mother being dead, no one had the power to make the prince listen to words of wisdom. One alone could influence him. This was his favorite, Olie, more of a bard than a courtier, more of a poet than a statesman, who liked better to sing with the prince than to weary him with talking.

However, as the two hundred and ninety-seventh ambassador took his leave, carrying away the two hundred and ninety-seventh portrait of the rejected princesses, Olie raised himself. He laid down his lute, stopped singing the verse he was composing, and sat listening pensively to the horses of the escort as they hurried away at an angry gallop.

"Well," said the prince, "of what thinkest thou?"

Olie sighed without replying. Like the prince, he was but twenty, and his youthful face had the beauty of a girl's among its light blonde curls.

Hemmi was dark, grave and pale, with dreamy eyes.

"Of what thinkest thou?" repeated the prince, impatiently.

"I am thinking it is sad that such a prince as you should have taken upon himself the vows of chastity."

Hemmi began to laugh. "I have taken no vow," then growing sad, he added: "My heart is filled with love; only Olie, will you understand me?—I do not wish to give my beautiful love to a doll without soul or mind."

"For mind," said Olie, "I see no necessity! She whom one loves always has enough of that, provided she has the sense to let herself be loved."

"Undeceive yourself! I want the one I choose to understand me and be able to respond to my thoughts and feeling, even when the days of our first passion are over. Olie, thinkest thou of the horror of passing one's life with a statue whom one would have to animate oneself, and which, as soon as one ceases to love it, it would fall back into its inert doll state?"

"Tra-la-lal! la!" sang Olie, touching the strings of his lute.

"Thou mockest, instead of consoling me."

"I do not mock, I sing, because in singing my most precious thoughts come to me, and I would find some way of drawing you out of your difficulty. But wait, Prince Hemmi, here is the plan I have been seeking."

"Tell it quickly!"

"Why not arrange a tourney of ladies for which your heart shall be the prize?"

The prince shrugged his shoulders.

"I mean," continued Olie, "a gallant tourney, a sort of a court of love to which those who wish to be queen shall bring poems composed by themselves. Poetry is never found in vulgar souls. One must love in order to sing."

"Thy idea is good, but who will guarantee that the poems brought by these ambitious women were written by themselves?"

"That can be easily proved. When the three best poems are chosen by you, the three authors shall be shut up in your palace, each in a separate room where no one can approach them. We will leave them there a whole night, merely taking care that they may have ink, pens, parchment and a comfortable bed, for the mind needs to be sustained by the body."

"Olie, dost thou really think I can do this?"

"Why not? Trust to me. Make known throughout your palace that the first day of the new moon you will receive all women who wish to try their luck. Only, Prince Hemmi, do not expect all the candidates to be noble, for very few could combine brain, intellect and heart with enough courage to confess to their wish to be chosen."

"I ask for nothing except a loving heart."

"Be at peace, then," said Olie.

And humming a virelay, he gave orders to announce this remarkable tourney, the reward of which was to be a throne, and, better still, much love.

The candidates came in crowds. Not the daughters of great lords, for, as Olie had predicted, these were too proud to compete. In anger at not daring to do so, they made fun of the prince. "What a fool he was, and how the unhappy woman he chose was to be pitted!" Thus wagged the kindly tongues against the daughters of the lesser nobles and the bourgeoisie.

There came also intriguing women, beautiful, bold creatures, who were dismissed without pity as soon as one of the courtiers recognized them.

On arriving, all handed to Olie, who had been charged to read them, their rolls of parchment. The manuscripts were thrown into a covered basket. Olie took them out at random and began to read. "What wretched verses! What rapid thoughts!"

When he heard them, Hemmi began to regret having attempted the impossible; he was sorry he had consented to let at least of love, and he had seemed worthy of the offered reward. "Oh, such wretched verses! Such rapid thoughts!"

Three manuscripts only remained to be read. Olie unfolded one and began, whereupon the prince took courage. "Tith in a moment more the wretched, bowed figure, nervously clutching its heavy and protesting burden, was shut out into the biting wind and stinging sleet of a late December afternoon."

"Did you ever?" exclaimed a fashionably dressed woman, who sat fondling against her seakink coat a tiny lap-dog, adorned with a huge blue bow. Her neighbor, a young girl of about fifteen, with a thick braid of brown hair falling down over her trim frieze jacket, assented eagerly.

"It's dreadful!"

The fashionable woman put up her eyeglasses to stare out at the cowering little figure on the platform. "The idea of her trying to force her way into the palace with those disgusting lines. The conductor should have put her off at once to pay for her impudence."

For a moment the girl with the brown braid stared open-mouthed at the speaker, then with flashing eyes she blurted out: "That wasn't what I meant a bit! And, springing to her feet, hurried to the back of the car. Opening the door she stepped out into the blast. The conductor reached up to pull the strap, but she shook her head and pointed to the old woman.

"The dreadful making her stand out here in the cold."

"I've got to," said the man gruffly.

"Why are you worse than dogs? There's a little dog inside."

"Next stop, Bolton street," shouted the conductor, turning an obdurate back.

The girl laid her hand on the bent, thinly clad shoulder. "Give me the hens, she said. The old woman shrank back with a look of terror. Was she first to be thrust into the cold and then to be made a laughing-stock?"

"Saints preserve us!" she gasped.

"I mean to hold them and you sit inside. There, do not me—why, you are afraid I should steal your hens, are you? Look at me. I don't look like that kind of a person, do I?"

The old woman let her watery eyes rest a moment on the pretty, fresh face bent so sympathetically over her own, and her hand relaxed its tight clutch on the yellow legs of the fowl.

"The provision man gave 'em to me," she said. "I was working there. Me could man do be fair crazy about hens. He's been sick. I've got rheumatiz bad meself."

"I've never had rheumatism in my life," replied the girl, "and my coat is thicker than your shawl. Come, let me hold them. How far are you going?"

"To Bolton street, Evansville," said the old woman, naming a humble suburb.

"All right; go inside."

"The howly Virgin bless ye!" And in a moment more the fowls changed hands. The girl shrank back a little as she took hold of the queer, yellow claws, but she nodded bravely through the pane at the wrinkled, grateful face lit with warm air.

"Howly Virgin bless her! The saints be good to her! The howly Ghost watch over her, and keep that little lamb from harm." These invocations, to the accompaniment of the swish of the sleet on the panes and the rattle of the case-mates, made the other passengers in the car fix their eyes now on the girl outside, now on the old woman within.

Suddenly a shy-looking, poorly clad boy of sixteen rose and let himself out at the rear door. Every eye followed him. The passengers seated next the back windows pressed their faces to the pane. The boy was not alighting. He was talking to the sweet-faced angel of mercy. What he said only the conductor could hear.

"Let me take them," he stammered awkwardly enough.

"Oh, I don't mind to let them, thank you."

"It's too cold for you. Let me take the hens."

"But it's way to Evansville."

"All right." And, pulling the tied-up claws of the girl's small, gloved hand, the boy thrust open the door of the car.

"Sit ye down, darlint," said the old woman, making room beside her. Then, anxiously, "Is he an honest boy, do you be thinkin'?"

"Oh, I am sure he is."

"A terrible temptation, two good fat hens!"

But hardly were the words out of her mouth before the girl opened wide eyes of horror. The boy—courteous, frank-faced boy—had, without warning, and the car rattling along at full speed sprung from the platform.

"My hens! my good fat hens! Stop the car. Oh, howly Mary, the black-hearted thief!"

The whole company was now in commotion, and even the conductor himself pulled the strap to give the boy a chance to repent and abandon board the car. No, he was nowhere to be seen. The city streets were by this time left behind, and the train was running through a dirty, untidy suburb. Only a few figures, eager to get out of the bitter wind, were hurrying along the sidewalks. The lad and the speckled hens had vanished as completely as if the earth had opened and swallowed them.

It was a terrible temptation, two good fat hens! A kind-looking man with gray hair held her back.

"Why, the young jailbird's off half a mile, by this time," he said. "Now, see, ma'am you just sit quietly down here."

"My hens! my good fat hens! that the provision man give me! And the old man at home do be just crazy about them!"

"Yes, yes, I know; but you sit right down here again beside this nice young lady. Don't you cry, little girl, we're going to make it all right. We're going to make a purse."

"An' sure and the old man and me never yet had a penny of money in our hands. Oh, the speckled feathers of 'em, and the good fat breasts! No, no, takin' other folks' money in charity, I tell ye."

"Charity? Who's talking of charity? You come from Evansville, don't you? Well, didn't they make up a purse for Father Carroll last Easter? You're one of Father Carroll's parishioners, I'll bet a nickel, and gave your bit, too, I know. Of course. There now! Bless you! I'll not some one make up a purse for me in this car. I wouldn't refuse it. But no, they won't, not one of them! It's you that are the favorite! Jerusalem, but the hat's getting heavy!"

"The sympathetic laughter the hat had gone the rounds, and even the lady with the lap-dog had given generously. It was a goodly pile that was emptied into the apron of the lamenting old lady, who, dazed and miserable, hardly seemed to realize her good fortune.

"And himself so fond of hens," she murmured. "Ash street!" shouted the conductor.

Sweeping up the coins and bills, the girl with the brown braid thrust them into the pocket of the old woman and took her by the arm.

light, lips trembling in a pale face, and above all, great, beseeching eyes in which lay one knew not what tender longing. He saw nothing but the pale woman, the audacious beggar of love.

"And you whose poem is infinitely sweet, tell us, madame, who inspired you?"

Calmly she raised to the prince her soft glance and said:

"I dreamed of love."

So much meaning thrilled through this reply that the heart of the prince bounded in his breast.

He no longer saw the haughty muse in the red glory of her royal robes, nor the other smiling in her flower-hued gown. He saw nothing but the pale woman, the audacious beggar of love.

Into the chamber to which they were to lead her of the proud eyes, the prime minister glided furtively, and in place of the black ink already on the desk, put some golden ink.

He said to himself, in his narrow reasoning, that brilliant letters would make the words more precious, and he thought that the unknown poet, by evading with words of flattery the refusal of the prince to fall in love.

Olie's choice was the blonde woman with the luminous eyes. And in order that the poem she wrote might enlighten the more, he placed on the table colors and brushes. Thus she could adorn with arabesques the graceful lines she was about to trace.

As for the pale woman with the beseeching eyes, no thought of her—no one, alas! but the valet, whose duty it was to make ready the necessities—ink, pens and parchment. "What!" said he to himself, "make a queen out of a beggar? Compel me to serve her!"

In order to insure himself against this, the valet thought he had found a way,—he over-turned the ink.

She would defend herself in vain the following day, the adventurer; every one would think that she had made up a pretext to excuse her inability to compose verses without ink.

Before an expectant court Prince Hemmi himself unrolled the three parchments. The first was in ink of gold, admirably suited to the beauty of the poem. In sonorous, well-rhyming lines, it celebrated the glory of being king, the pride of being master.

The second parchment was covered with flowery arabesques. But of verse, none. The blonde muse excused herself, saying, that, like certain birds, she was unable to sing when engaged.

Olie sighed.

Hemmi unrolled the last manuscript. The letters were traced in red ink which in many places was partly rubbed off.

The prince read, and when he had finished the poem:

"Come! Oh, come," cried he, "thou who knowest how to love; thou whom I recognized."

She came to him slowly, and at her coming the prince's heart leaped.

She no longer wore her faded robe, but a purple tunic, which made her pale face whiter than ever.

"My one love!" exclaimed Hemmi. She smiled.

Larger, more luminous opened her eyes. Suddenly she staggered. The prince held out his arms, she glided into them, still smiling her own derisive smile.

At their feet the manuscript had fallen, as red as the dress she wore.

Hemmi gave a cry of anguish. The purple robe clung to him, and beneath the torn folds a yawning wound showed itself.

Then the prince knew that the woman had written the most beautiful poem with her heart's blood. Translated from the French for Short Stories, by Arabella Ward.

THE SPANKY MAN.

When the Spanky Man comes there is trouble indeed.

For what does he do but politely proceed To settle old scores and give folks what they need—

The funny old Spanky Man.

Oh, the Spanky Man is so very polite,

"It hurts him," he says, "more than you"—to be frank, you inwardly hope that it might—

The hateful old Spanky Man.

When the Spanky Man comes there are wallings and tears,

And of course, as he's "deaf to entreaty," my dear,

This ill-bred reception he never once hears—

The naughty old Spanky Man!

When the Spanky Man comes he won't ring the bell,

He appears, and the maids with a leer run and tell,

And of course you can see that it's all very well

For the grim little Spanky Man.

When the Spanky Man comes we run and hide down

in the cupboard, and breathe hard inside;

But he has sharp eyes, and we're always Hi-Spied

By the wretched old Spanky Man.

When the Spanky Man comes he is met with a yell,

I wish that he wouldn't remember so well!

When the Spanky Man comes Us Girls never tell!

Oh, the horrid old Spanky Man!

—G. Orr Clark, in Harper's.

Two Good Fat Hens.

"Do you take this fat for a hen-yard? No live-stock inside!" Well, I tell you, I was

buried out under an electric car on a crowded city street. "Out with you!" And he pushed roughly out upon the platform a bent old woman, muffled in a ragged shawl.

The other passengers glanced curiously to see what the live-stock man had done, and perceived that the old lady was carrying by the legs a pair of live, speckled hens.

"No, ma'am; no live-stock, I tell you. Cold on the platform! Well, I guess if you stand it, you can stand it." And in a moment more the wretched, bowed figure, nervously clutching its heavy and protesting burden, was shut out into the biting wind and stinging sleet of a late December afternoon.

"Did you ever?" exclaimed a fashionably dressed woman, who sat fondling against her seakink coat a tiny lap-dog, adorned with a huge blue bow. Her neighbor, a young girl of about fifteen, with a thick braid of brown hair falling down over her trim frieze jacket, assented eagerly.

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"



## The Horse.

## Dover (N. H.) Meeting.

The September meeting at Granite State Park opened under rather adverse weather conditions, for a high wind, together with a dull sky, dampened the enthusiasm of many, and the attendance was necessarily light. As the afternoon wore away scattering rain drops moistened the coats of the few who had disregarded the ominous signs of the morning. The racing was of the usual order, and the fields gave starter Merrill little trouble in scoring.

The wind was the chief feature, and encouraged by its clean sweep from the chilly summit of Blue Job, grew bold as it sailed over the sandy plains, and took impudent liberties at Mr. Jones's track. In the judges' stand, Scott Locke was obliged to resort to a "score-card boy's" cap, in order to keep his "thinking dome" covered, and at times Manager Christie was seriously considering the advisability of calling Joe Churchill to his chair. Bert Merrill clutched desperately at the big locomotive bell tongue and finished the afternoon gamely.

Dr. Bailey, acting as one of the timers, mistook a "non-combatant" pole at the turn for the quarter pole, and when he caught Melton there in 28 seconds in the first heat of the 2.24 trot, he had no vision of the coming two-minute trotter. But when the other timers announced 35 seconds for the first four furlongs he breathed more easily.

Mr. Lasell's four-year-old colt Melton won each heat of the 2.24 trot in a very clean-cut manner, getting a mark of 2.16 in the second heat, apparently well within himself. Nanita, by reason of her showing at Nashua, opened a favorite, and there was a strong play on Geiger and Jimmie Michael. Geiger well at the wire. He is a strong-going fellow, with lots of hock action, and finishes in a resolute manner.

Walter Cox captured the big ends of the purses in the 2.16 and 2.24 paces. Hetty Green, the hobbled Alcantara mare, raced in front all the time in the 2.16 pace, with Ellie, View and Ned Perry doing battle for the place. Cox showed a good one in the 2.24 pace in the rugged chestnut horse Frank M. He wears the double harness, but his looks and deportment are of the high-class order. He is by Strong Boy, dam by Civilization. This being an inbred (trotter), he opened favorite, of course, for he won at Concord, at which place he made his initial bow to the New England public.

A novel feature of the afternoon's programme was the sale of Dent F., the tall, rangy pacer that Bob Proctor has campaigned all summer. Immediately after the race the owner mounted the platform and called for bids. He proved a good auctioneer, for he raised the figures from the first bid of \$200 to \$375, and the horse was sold. The summaries:

**Granite State Park, Dover, N. H., Sept. 9, 1902—2.24 trot, Purse, \$500.**  
Melton, b. h., by Alcantara; dam, Minnie Thoroughbred, by Billy Thoroughbred, Lasell, 1 1  
Kamaree, b. h. (Young), 2 2  
Geiger, br. g. (Proctor), 3 3  
Nanita, b. m. (Proctor), 4 4  
Jimmie Michael, b. h. (Devlin), 5 5  
Handspring, b. h. (Pierce), 6 6  
Crowhatch, b. g. (Wall), 7 7  
George H., b. g. (Switzer), 8 8  
Time, 2:19, 2:16, 2:14.

**Same day—2.16 pace, Purse, \$500.**  
Hetty Green, b. m., by Alcantara; dam by Burgo (Cox), 1 1  
Ned Perry, b. g. (Humphreys), 2 2  
O'Leary, ch. g. (Sted), 3 3  
Ellie, b. g. (Palmer), 4 4  
View, br. m. (Boswell), 5 5  
Mary C., ch. m. (Proctor), 6 6  
Jesse Wilkes, b. m. (Clary), 7 7  
Time, 2:13, 2:14, 2:13.

**Same day—2.24 pace, Purse, \$500.**  
Frank M., ch. g., by Strong Boy; dam by Civilization, 1 1  
Dent F., b. g. (Proctor), 2 2  
Ephraim, b. g. (Merrill), 3 3  
Destina Deane, b. m. (Proctor), 4 4  
Lady Nelson, b. m. (Kimball), 5 5  
Grange, b. h. (Lawrence), 6 6  
Cascade, br. g. (Wall), 7 7  
Time, 2:14, 2:15, 2:16.

**Second Day.**  
After such a dreary day as fell on the night before, one would hardly expect any track to be in start over on the next day. But the track at Granite State Park is noted for the alacrity with which it can recover from a severe wetting. Today at noon the course was good, with the exception of first-horse pace.

There was a good attendance when starter Merrill called the 2.12 pacers at 10 o'clock. Six side-wheelers scored for the word, and Stormwood had the call, there being a fair play on Jesse H. and Special Boy.

The hobbled son of Stormwood outpaced his field in the first two heats, but in the third, just when it looked all over, Golden with a rein-felling-finish drive, of which he is a past master in the art, landed Jesse H., a winner in a most decisive manner. When they got the word in the fourth heat Golden allowed Stone to show the way, with Stormwood way up the backside and into the stretch. Here Jesse H. forged ahead, but Stormwood rallied sufficiently to win by half a length.

Just when they think Ralph Wick is beaten he makes a revolution or two and struggles on, just fast enough to trim the other fellow, and it doesn't seem to matter much who the other fellow is. There may be horses that are faster, more handsome and showy, but there are none more honest than Harvey Devine's big day son of Almont Brunswick. John Riddle drove him a clever race today, and he won, and several his horse for a well-timed and successful finish drive each heat. The talent thought Kalevala, Authress and Brigham Bell could outpace him, but the Allen Farm mare seemed to be lame after the first heat, Brigham Bell couldn't reach, and Authress was decidedly off form.

The race of the day was the 2.08 pace, and the win of the brave daughter of Alcantara was popular with the majority. Louise G. was the high-dollar horse in the pools at \$50, Terrill S. and Chuch bringing \$25 and \$15 respectively, while the small-end buyers depended on Ned Wilkes, Emma E. and Dandy C. to lay up and gather in the shekels when Terrill S. and Louise G. should become worn out. But those that tried, tried in vain, and those that laid up might as well have stayed in the barn, for when Merrill turned Louise G. loose in the fifth heat after an easy fourth she came back sturdily in 2:04, and had something to spare at the wire.

The race was merely a duel between Terrill S. and Louise G., and that the gelding did not win, was not because Mr. Lasell did not use a whole lot of good generalship. He drove a fair but still a keen race, and left nothing undone that would help Terrill S. win.

Frank Merrill, too, drove Louise G. the race of his life, took her away easy, and was contented to make his drive in the last four furlongs. Terrill S. won the third heat in a driving, slashing finish, and in the fourth while Ned Wilkes hammered away at Lasell's horse, Merrill gave Louise G. an easy mile.

The crowd was all excitement when they



JOHN A. MCKERRON, 2.10, WHO WON THE AMATEUR CHALLENGE TROPHY AT CLEVELAND, FRIDAY, SEPT. 5.

came out for the fifth. Terrill S. rushed away to the quarter in 31, to the half in 1:04, and Louise G. moved steadily along in his trail. At the upper turn she began to close the gap, and at the three-quarters was at his saddle. On they raced, each responding gamely to whip and voice, but the mare with a mighty effort forged ahead at the distance flag, and the good chestnut gelding, that has known defeat so little in his career, was obliged to surrender to the daughter of Alcantara. Art Alca went a good race, as usual for Timothy, and was the only one that was "up and doing" in the field, with the exception of the heat winners.

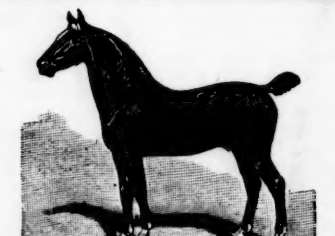
While they were scoring in the second heat, drivers Lasell and Timothy were fined each \$10 for scoring ahead of the pole horse. The only kicking done so far was by C. H. Nelson between heats, when he amused a number of gentlemen by kicking the cobwebs from the beams of the judges' stand. The beams are several inches higher than his head. Pretty good for an old man.

**Dever, N. H., Sept. 10, 1902—2.12 pace, Purse, \$500.**  
Stormwood, b. g., by Strongwood; dam, Thoroughbred (Stone), 1 1  
Jesse H., b. g. (Golden), 2 2  
George G., br. g. (Gibbs), 3 3  
Special Boy, ch. g. (Timothy), 4 4  
Darnette, b. m. (Winch), 5 5  
Rana, gr. m. (Young), 6 6  
Time, 2:11, 2:11, 2:11.

**Same day—2.08 pace, Purse, \$500.**  
Ralph Wick, b. g., by Almont Brunswick; dam, Louella, by Harry B. (Riley), 1 1  
Ginger Wilkes, gr. g. (Churchill), 2 2  
Kalevala, b. m. (Young), 3 3  
Brigham Bell, b. g. (Garrison), 4 4  
Byron Wilkes, b. g. (Page), 5 5  
Authress, b. m. (Devlin), 6 6  
Mary Rachel, ch. m. (Timothy), 7 7  
Time, 2:06, 2:06, 2:06.

**Same day—2.06 pace, Purse, \$500.**  
Louise G., b. m., by Alcantara; dam, Louella, by Harry B. (Riley), 1 1  
Terrill S., ch. g. (Lasell), 2 2  
Art Alca, b. g. (Timothy), 3 3  
Ned Wilkes, ch. g. (Switzer), 4 4  
Emma E., ch. m. (Lawrence), 5 5  
Dandy C., b. g. (Dobie), 6 6  
Cinch, ch. g. (Bass), 7 7  
Time, 2:05, 2:05, 2:05.

**Third Day.**  
The largest attendance of the week was present on the closing day of the early fall meeting, and the racing, while not split up to any great extent, was full of interest. James Golden by some cool drives landed the erratic Silver Glow first in the 2.15 trot, and lowered his record in the third heat to 2:12, with Waco's nose at his saddle girth. The black mare Pixie drew the pole, but



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when they got the word Charlie Gardner gave Baron March his head and outstepped the bunch three open lengths at the quarter. He cut a boot off here and Pixie and Silver moved on to the front head and head. It was one of the prettiest heats of the week, these two horses matching stride for stride, and way up to the wire the result was in doubt. But Silver Glow won the heat by inches and the crowd went wild.

After that the field was always closely bunched throughout the mile. Baron March, who showed such speed but who seemed to be unfortunate, first started at Hartford four years ago and won. He was then owned by Mr. James Butler of New York, and driven by John Kelly.

The 2.14 pace was a guessing match for the spectators, Dewey H. and Deacon selling for \$25 each, Lanter \$15, and the rest \$10, and not till the race was over did they cease to back their opinions.

Deacon made his first appearance in a race in hobbles, and after going easy the first two heats, broke at the distance flag when he seemed to be sure of winning the third. Dewey H., the other favorite, rushed away when they got the word in the first heat and took the lead, showing the way to within fifty yards of the wire, when he had enough, and the homely gray horse William I. won the heat, with Lanter only half a length away.

William I. had been entirely overlooked in the betting, few seeming to remember what a good winner he has been over all the half-mile rings in Vermont and New Hampshire. He is not an attractive-looking horse, wearing hobbles, many boots and spring wire knee-spreaders, but he looked good yesterday to those who had \$5 tickets calling for from \$100 to \$150.

Satan won the first heat of the 2.19 pace so handsly that it looked like a "cake walk" for him to trim his field, but when they got the word in the second heat he was not on his stride, and after going fifty yards went to pieces, and Merrill was unable to get him right good and flat the rest of the race.

Walter Cox, who has got into the confirmed habit of winning, stepped Christine B. off in front, and only came to a drive in the last heat when Harry Hotspur and Shiner got a little too close for comfort.

**Granite State Park, Dover, N. H., Sept. 11, 1902—2.19 pace, Purse, \$500.**  
Christine B., b. m., by Earl Belmont; dam, daisy, dam by Red Wilkes (Cox), 1 1  
Satan, b. g. (Merrill), 2 2  
Shiner, br. g. (Durland), 3 3  
Harry Hotspur, b. g. (Devlin), 4 4  
Great Guy, b. g. (Stanley), 5 5  
Chestnut Burr, ch. g. (Lindsay), 6 6  
Time, 2:14, 2:13, 2:13.

**Same day—2.12 trot, Purse, \$500.**  
Silver Glow, b. g., by Potentill; dam, Buda, by Trump (Golden), 1 1  
Waco, b. g. (Timothy), 2 2  
Pixie, b. m. (Gibbs), 3 3  
Alberta, b. g. (Dobie), 4 4  
Earline S., b. g. (Garrison), 5 5  
Baron March, b. g. (Gardner), 6 6  
Limerick, b. g. (Bass), 7 7  
Time, 2:14, 2:14, 2:14.

**Same day.**  
William I., b. g., by Arrow Wilson; dam, Vashli, by Maplewood (Gaffney), 1 1  
Lanter, b. m. (Palmer), 2 2  
Kavali, b. h. (Young), 3 3  
Gagnant, br. g. (Johnson), 4 4  
George H., b. g. (Miller), 5 5  
Deacon, br. g. (Riley), 6 6  
Gowey Wilton, ch. g. (Gillies), 7 7  
Time, 2:11, 2:13, 2:12.

**North Adams (Mass.) Fair.**

**EDITOR AMERICAN HORSE BREEDER:**  
The fair held by the Hoosac Valley Agricultural Society passed off smoothly and without an accident. The most interest shown was in the Special race, between local horses, and it took four heats to decide the race.

The 2.30 class brought out the largest class that was ever started on the track and the race was won by Fritz Boy.

Art Boy in the 2.30 trot or pace was driven out in the first heat by Daisy, and it was a horse race in the next two heats for second money between Daisy H. and Susie H., the latter winning by a neck.

On account of the rain on Thursday the race card for the last day was postponed until Saturday the 6th. And the weather on that day being good, about ten thousand people passed through the gates. The starter was Mr. Clinton C. Cook of Orange, Mass.

**SUMMARIES.**  
**North Adams, Mass., Sept. 3, 1902—2.40 class, trot, Purse, \$250.**  
Fritz Boy, b. g. (Milton), 1 1  
Frank Kennedy, br. g. (Brusie), 2 2  
Dick Delmar, b. g. (Clancy), 3 3  
Maid, b. m. (Kent), 4 4  
Zoe, br. (S. J. Hobbs Jr.), 5 5  
Last Trump, b. g. (Wookey), 6 6  
Sly (C. E. Hobbs), 7 7  
Ally Blandy, b. h. (Spencer), 8 8  
Time, 2:27, 2:29, 2:31.

**Same day—Special class, trot, Purse, \$150.**  
Rossiline, b. g., by Kremlin (Clancy), 1 1  
Dan, b. g. (Stallord), 2 2  
Christian, b. g. (Welch Jr.), 3 3  
Billy Nelson, b. g. (Smith), 4 4  
Time, 2:26, 2:27, 2:34, 2:34.

**Same day—2.35 class, trot or pace, Purse, \$250.**  
Art Boy, b. g., by American Boy (Spencer), 1 1  
Jack E., b. g. (Hobbs Jr.), 2 2  
Daisy H., b. m. (Hobbs Jr.), 3 3  
Matterhorn Jr., b. g. (Bushnell), 4 4  
Time, 2:24, 2:27, 2:29.

**North Adams, Mass., Sept. 6, 1902—2.15 class, trot or pace, Purse, \$250.**  
Sam Hill Jr., b. g., by Sam Hill (Clancy), 1 1  
Avin E., br. g. (Fox), 2 2  
Rose H., b. m. (Bercy), 3 3  
Time, 2:24, 2:18, 2:19.

**Same day—2.25 class, trot or pace, Purse, \$250.**  
Midget, b. g., by Cornwall (Clancy), 1 1  
Jack E., b. g. (Hobbs Jr.), 2 2  
Maid McGregory, b. m. (Bursie), 3 3  
R. H. Stearns, b. g. (Newton), 4 4  
Time, 2:24, 2:24, 2:24.

**Same day—2.21 class, trot or pace, Purse, \$250.**  
Timothy F., b. g., by Meander (Potter), 1 1  
Star Lillie, b. m. (Hanson), 2 2  
Ethel Healey, b. m. (Brusie), 3 3  
Time, 2:22, 2:23, 2:24.

**Worcester East Agricultural Fair.**  
The annual meeting of the Worcester East Agricultural Fair was held at the Clinton-Lancaster Driving Park on Wednesday, Thursday and Friday of last week, Sept. 10, 11 and 12. It was one of the most successful fairs, in all respects, ever held by the society. The exhibits in all departments surpassed those of previous years, and the attendance was very large, especially on the second day, which was a record breaker. It was estimated that twelve thousand people passed through the gates on Thursday.

The harness races were an interesting feature of the programme. A 2.40 trot and 2.20 pace made up the programme for the first day. The former event was won by the handsome bay mare Gambrella, from the Lawson stable, in straight heats. She defeated a field of nine competitors, and stepped her miles in a very impressive manner, entering the list with a record of 2:24, made in the second heat. This mare is by Gambrel (2:04); dam, Nelly Mac (dam of Jesse Hanson, 2:13, etc.), by Blue Vein. The 2.20 pace was won by Eclair Wilkes in straight heats.

The 2.35 pace and 2.20 trot made up the card of sulky races the second day. The former event was won by the Edgewood Farm mare Centrifuge, a very smoothly turned and glib-stepping daughter of Baron Wilkes and Belles Lettres, by Bell Boy. This was her third start and her second win. She is a four-year-old mare, and it would not be surprising if she took a record close to 2:10 one of these days. The 2.20 trot went to the chestnut gelding Fashion, and he didn't have to step in 2:30 to win.

The 2.24 trot and 2.24 pace made up Friday's programme. Fashion was again a starter in the 2.24 trot, his third start of the meeting, as he completed in the 2.40 trot the opening day. He and Miltonia made a great race of the first heat of this event, and he landed it by half a length in 2:21. They were head and head up to within three lengths of the wire, and under a hard drive, but Miltonia went to a break and pulled up very lame, straining a ligament in one of her hind ankles, and had to be drawn. She is a daughter of the Forbes Farm stallion Arion (2:07), and looks like a promising trotter. If she recovers from her lameness she should get a record well in the tens.

Fashion won the next two heats very easily. He is, in some ways, quite a remarkable gelding. In April he was hauling a milk wagon, but he had shown his owner considerable speed on the ice track in the next two heats for second money between Daisy H. and Susie H., the latter winning by a neck.

enough 2.15 trotter. He is good headed and racy, and acts as though he would fight it out to the finish. He was bred by W. H. H. Moody, Claremont, N. H. His sire is Quintuple, a horse that was bred by S. W. Parlin, editor of the Braintree, and his dam is Swanbilde (dam of W. H. H. Moody, 2:12, etc.), by Viking. Quintuple is a son of Allectus, and out of Hartell, a daughter of Almont Eagle.

Earl F., a gray gelding, by Tangent, had an easy thing in the 2.24 pace. There was also a running race on the programme each day, and all of them were won by the bay gelding Red Spider. The famous sire Baron Wilkes, from Maplehurst Farm, was shown on the quarter stretch each afternoon, and attracted much attention.

**SUMMARIES.**  
**Clinton, Mass., Sept. 10, 1902—2.40 trot, Purse, \$300.**  
Gambrella, b. m., by Gambrel; dam, Nelly Mac, by Blue Vein (Paige), 1 1  
Gracie Keller, br. m. (Lothrop), 2 2  
Lydia C., b. m. (Carpenter), 3 3  
Fashion, ch. g. (Sprague), 4 4  
Kitty, b. m. (Willie), 5 5  
Main Kead, b. m. (Bulman), 6 6  
Bertha B., b. m. (Morris), 7 7  
Red Macey, b. g. (Stuckey), 8 8  
Blue Hill Boy, br. g. (O'Donnell), 9 9  
Hannah Hewitt, b. m. (Nay), 10 10  
Time, 2:27, 2:24, 2:25.

**Same day—2.20 pace, Purse, \$300.**  
Eclair Wilkes, b. g., by Whirlwind Mac (McNally), 1 1  
Hal Brown, b. g. (Taylor), 2 2  
Joe D., b. g. (Keller), 3 3  
Jennie Lambert, b. m. (Jenks), 4 4  
Time, 2:22, 2:24, 2:24.

**Clinton, Mass., Sept. 11, 1902—2.35 pace, Purse, \$300.**  
Centrifuge, b. m., by Baron Wilkes; dam, Belles Lettres, by Belle Boy (Quinn), 1 1  
Harvard Boy, b. g. (Bulman), 2 2  
Belmont, b. g. (Bonnie), 3 3  
Time, 2:27, 2:24, 2:27.

**Same day—2.29 trot, Purse, \$300.**  
Fashion, b. g., by Quintuple; dam, Swanbilde, by Viking (Sprague); dam, Swanbilde, by Viking (Sprague), 1 1  
Mainkeel, b. g. (Bulman), 2 2  
Jack, ch. g. (Thomas), 3 3  
Blue Hill Boy, b. g. (O'Donnell), 4 4  
Time, 2:24, 2:24, 2:24.

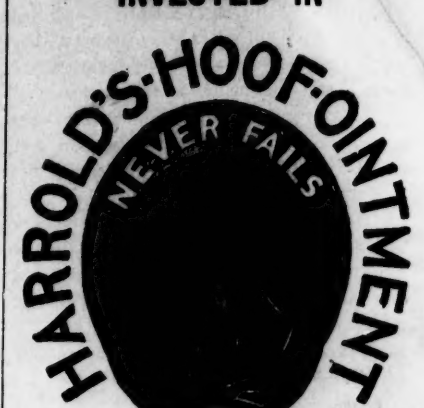
**Clinton, Mass., Sept. 12, 1902—2.24 trot, Purse, \$300.**  
Fashion, ch. g., by Quintuple; dam, Swanbilde, by Viking (Sprague); dam, Swanbilde, by Viking (Sprague), 1 1  
Winoponset, br. g. (Howe), 2 2  
Jid Wilkes, br. g. (Gilmore), 3 3  
Jack, ch. g. (Thomas), 4 4  
Time, 2:22, 2:27, 2:29.

Waubun (2:04) is the fourth trotter by Pilot Medium to take a record better than 2:10. Another member of the Pilot Medium family just outside the select circle is Aggie Medium (2:10), who has shown ability to clip off the fraction. Onward is the only other sire that has an equal number in this select list.

Colonel Galvin won six blue ribbons at the recent Concord Fair, two with Mackay Wilkes, by Red Wilkes, out of Lady Mackay (dam of Oakland Baron (2:08), one each with Col. Mosby, by Bingen (2:04), a yearling colt by Oakland Baron (2:04), a two-year-old filly by Oakland Baron (2:04), and his five-year-old driving mare Florence Vassar, by Vassar (2:07).

Mr. George A. Fales of this city bought not long since from R. W. Robbs a handsome bay trotting mare by Dark Night, son of Alcione (2:27), dam, Fide (dam of Mary Celeste, 2:17), by Guy Wilkes (2:14); second dam, Fide, by Director (2:17); third dam by Reavis' Blackbird, son of Simpson's Blackbird. This mare has shown a mile in 2:28, trotting. Mr. Fales has driven her on the road and speedway. She should make a valuable brood mare when her speedway days are over.

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2.22 Trot and Pace....." 250  
Road Class, Half-mile Heats....." 25

**THURSDAY, OCT. 2.**  
2.30 Trot and Pace.....Purse, \$300  
Free-for-All....." 200

**ENTRIES CLOSE SEPT. 20, 1902.**

**CONDITIONS**—Entries close Sept. 20. Records made after Sept. 1 no bar. National Rules to govern. Entrance fee five per cent, with five per cent. additional for Hobbies. Hobbies allowed. Only a ten-mile drive to Danbury, where races are held the following week. For entry blanks and other information, address C. G. PECK, Sec'y Horse Dept., Newtown, Conn.

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